

**RELATIONSHIPS AMONG LANDOWNER AND LAND OWNERSHIP
CHARACTERISTICS AND PARTICIPATION IN CONSERVATION
PROGRAMS IN CENTRAL TEXAS**

A Thesis

by

JENNIFER CEARLEY SANDERS

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

May 2005

Major Subject: Wildlife and Fisheries Sciences

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May 2005

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ABSTRACT

Relationships Among Landowner and Land Ownership Characteristics and Participation in Conservation Programs in Central Texas.

(May 2005)

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Recent land ownership trends in Texas have created concerns for natural resource agencies throughout the state (Wilkins et al. 2000, 2003; Steinbach 2001, American Farmland Trust 2003). An increase in the number of small properties has been associated with drastic changes in management emphasis in many areas and has led to concerns regarding landscape and ecosystem-level processes. Additionally, these apparent changes in management emphasis have subsequently led to concerns regarding the effectiveness of traditional natural resource conservation programs for all types of landowners.

In this study, I sought to quantify differences in landowner characteristics, attitudes, and motivations in the Leon River Watershed using an informant directed interview process (Holstein and Gubrium 1995). I contacted and interviewed 60 landowners in the 4 central Texas counties contained within the Leon River Watershed. I found that landowners in my study could be classified into 1 of 3 categories that represented distinct goals, attitudes and motivations regarding land ownership and

agriculture and wildlife management. Born to the Land, Ag. Business, and Re-born to the Land owners each display strong ideals regarding the proper context of land management, extremely distinctive ethical attitudes regarding their role as stewards of their land, and identifiable differences in their willingness to participate in various natural resource conservation programs.

Natural resource agencies and organizations will now have the ability to profile landowners as to their likelihood of participation in various types of programs and conservation initiatives. The findings of this study could lead to dramatic changes in the way landowners are viewed and dealt with by many natural resource professionals.

ACKNOWLEDGMENTS

There is no way to thank everyone who influenced the initiation, implementation, and completion of this project. If not for the family members, friends and colleagues who prodded me into graduate school, my part here would have never been played. Thanks in this goes to my parents who always have faith in me and instilled in me not only a passion for natural resources and Texas agriculture, but a burning desire to leave the world better than I found it; to Tamara Trail and Dr. Dale Rollins who said, “if not now, then when?”; and to Mr. Hamilton who said, “the Leon River Restoration Project is the place for you”.

Thank you, Dr. Wilkins, Dr. Conner, and Mr. Hamilton, for allowing me to tread “outside your comfort zones” with a qualitative project – I am beginning to learn that unfamiliar waters are where some of the most needed work is found. Nils Peterson, thanks for taking time to help me think through the initiation of this project and for providing much-needed expertise as we got it off the ground. Drs. Marcus and Tarla Peterson, thanks for your advise and guidance throughout this process. Dr. Wilkins, thanks for knowing when to prod me to work harder and dig deeper, and when to pull back on the reins and help me find the right course. Your leadership style has taught me a lot.

To the Wildlife & Fisheries Extension “clan” in Nagle Hall – Thanks to you all! Your advise, friendship, and camaraderie helped me avoid numerous nervous breakdowns. Thanks to Doctor Bill who was the brains behind my landowner profile names

and a great sounding board for my random thoughts. Thanks to Cain, who was a constant companion in my home office, and a sounding board when needed. And thanks to Robert who prodded me to keep going when times were tough, who put up with my stressful days, and who made me the happiest girl in the world half-way through my graduate school experience.

And most of all, thanks goes to the wonderful people of Bell, Coryell, Hamilton, and Comanche Counties that made this thing happen. Steve Manning, Danny Par, Lyle Zoeller, and all of the wonderful staff at each of the four County Tax Appraisal District offices I worked with – thank you from the bottom of my heart! Your unbeatable Central Texas kindness and helpfulness not only made this project happen, but made it enjoyable as well. Similar thanks is due to the Bowers and Freeman families whose friendliness and hospitality helped me gain an even deeper understanding of the landowners of Central Texas. And to the landowners – your willingness to participate in this valuable study has not gone unnoticed. I will never be able to fully express the gratitude I felt each time I was welcomed into one of your homes. The wealth of information and knowledge I received goes well beyond the confines of what can be expressed in this thesis. Thank you for your role in Texas rural heritage. Your contributions will not and have not gone unnoticed.

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CHAPTER I

GENERAL INTRODUCTION

BACKGROUND

Land ownership changes are taking place at an alarming rate throughout the state of Texas (Wilkins et al. 2000, 2003; Steinbach 2001, American Farmland Trust 2003). In the last decade, mid-sized farms and ranches have declined at a rate of more than 100,400 ha per year. The demand for rural lands – and subsequent exurban development – has driven prices higher and enticed struggling farmers and ranchers to subdivide and sell their land for purposes other than traditional agricultural production.

This phenomenon may be cause for concern on various levels. Ownership fragmentation commonly results in wildlife habitat fragmentation and subsequent changes in ecosystem-level processes. New landowners bring in new ideas, backgrounds, goals, levels of income, education, experience, and perspectives. Presumably, these individuals will obtain information in different ways and will respond to different methods of communication and persuasion than traditional landowners. With these changes in demographics, there may be far-reaching implications that will affect policy initiation and implementation, and natural resource management.

The Leon River Restoration Project (LRRP) provided a unique opportunity to sample a wide range of landowners for providing insight into the changing climate of Texas' land ownership and the implications it may have on natural resource agencies and conservation programs. The LRRP is a collaborative, multi-agency effort that has achieved widespread support from landowners despite its focus on endangered species

conservation. The purpose of my work was to gain insight into the success of this particular program from the landowner's perspective, as well as evaluate the ideals of landowners in general. In addition, I saw the need to evaluate the desires of different landowners regarding landowner assistance from government agencies, as well as the awareness different landowners had of those agencies.

STUDY AREA

The study took place in the central Texas counties of Bell, Coryell, Hamilton, and Comanche, all located within the Leon River Watershed (Figure 1.1).

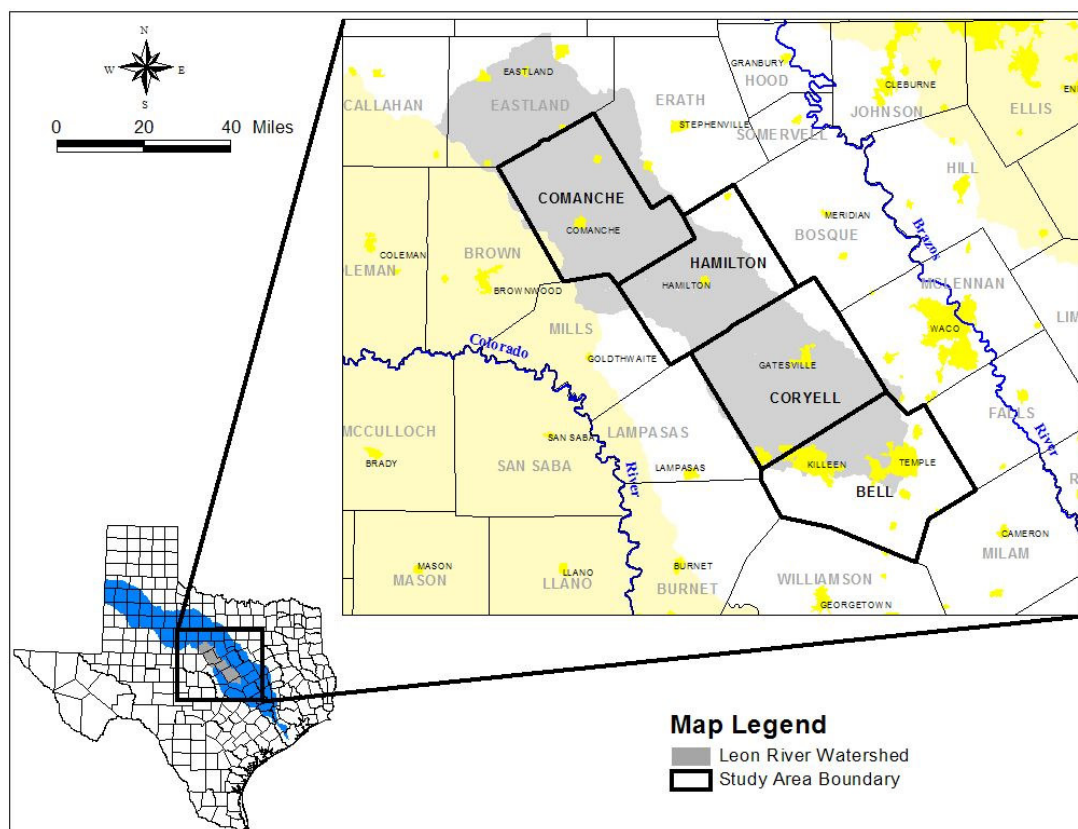


Figure 1.1. The portions of Bell, Coryell, Hamilton, and Comanche Counties within the Leon River Watershed were used as the study area for this project.

OBJECTIVES

My specific objectives for the project were to answer the following questions:

1. Are there identifiable differences between “traditional” landowners and “newer” landowners?
 - a. In their ownership objectives?
 - b. In their decision-making regarding range and wildlife management?
 - c. In their program participation and contact with agencies?
 - d. In their demographic and property characteristics?
2. Can landowners be grouped into categories that will represent predictable responses to various types of conservation programs?
3. What kinds of contingencies will a decision for or against involvement in an endangered species conservation program be based upon?

Following the initial portion of the study, a secondary analysis process was initiated with the goal of exploring some preliminary findings about my landowners. I identified a unique stewardship ethic that seemed to permeate the value systems and thus guide the decision-making processes of many of the landowners that I interviewed. This was in contrast to much of the literature that labeled landowners as being driven by short-term economic incentives, and having little regard for long-term sustainability of native plant and animal communities and ecosystems. I therefore initiated a second set of analysis to explore the following questions:

1. Do contemporary landowners view themselves as stewards of their land?

2. If all landowners do not exhibit a sense of stewardship or a land ethic regarding the land in their care, are there certain characteristics that identify those who do?
3. What has caused the shift in values from those of the frontier hero (“conqueror of the land”) to those seen today (“plain member and citizen of it”) in some landowners?
4. What kind of influence does a landowner’s sense of stewardship or the presence of a land ethic have on their ownership and management decisions and participation in government conservation programs?

CHAPTER II

USING LANDOWNER PROFILES TO ANTICIPATE RESPONSE TO CONSERVATION PROGRAMS

OVERVIEW

The long term success of any private lands conservation program is largely influenced by the rate at which the program is adopted by landowners. In turn, landowner adoption is heavily influenced by attitudes and viewpoints that vary depending on background, experience and other factors. Private land ownership in central Texas has undergone recent shifts resulting in fewer traditional (i.e., agricultural) landowners and more absentee and recreational landowners. Using informant directed interviews I sought to obtain a “snapshot” of landowner profiles across a 4-county area within the Leon River watershed. I contacted and interviewed 60 landowners, and using thematic analysis of their discourse, evaluated differences in motivations and attitudes regarding range and wildlife management and participation in government incentive programs for natural resources. My results identify 3 dominant landowner profiles in the Leon River Watershed (“Born to the Land”, “Re-Born to the Land”, and “Ag. Business”), and associated attitudes and motivations regarding incentive programs, and range and wildlife management. I found that Born to the Land owners can most effectively be reached with incentive programs that are packaged into locally-delivered cost-share initiatives that empower them to be good stewards of their land. Re-Born owners are most likely to participate in educationally-oriented programs including field days and extension programs. And Ag. Business landowners will be most effectively

reached with personal attention by recognized ‘experts’, trained Technical Service Providers or other private entities or individuals. . By focusing their efforts on programs likely to be successful with a target landowner profile, organizations with missions of extension outreach and technical guidance can use these results to better inform their decisions concerning conservation programs.

INTRODUCTION

Private land ownership in Central Texas has undergone recent shifts resulting in fewer traditional (i.e., agricultural) landowners and more absentee and recreational landowners (Steinbach 2001; Wilkins et al. 2000, 2003; American Farmland Trust 2003). In the last decade midsize farms and ranches have declined at a rate of more than 101,173 ha per year. Trends in exurban movement have facilitated higher market prices for land, encouraging many struggling farmers and ranchers to subdivide and sell their land for purposes other than traditional agricultural production. Primary use of land for recreational pursuits has outpaced the other motivations that drive rural land sales in Texas since at least 1994 (Wilkins et al. 2000). This phenomenon is cause for concern on various levels. Because the purchase of lands for consumptive uses such as recreation is not subject to the same financial and economy-of-scale constraints as traditional agricultural pursuits, ownership sizes tend to be smaller – thus resulting in a trend of ownership fragmentation (Wilkins et al. 2003). Ownership fragmentation consequently results in habitat fragmentation (Engle and Wilkins, unpublished data) as well as shifts in the social and economic mix in rural areas. This can result in a clash of cultures, and, as important, a misunderstanding of motivations by those that have traditionally provided

landowners with technology transfer, assistance programs, extension education, and technical guidance. New landowners bring in new ideas, backgrounds, goals, levels of income, education, experience, and perspectives. Presumably, these individuals will obtain information in different ways and will respond to conservation programs differently than will traditional landowners.

Field personnel in natural resource agencies are becoming overwhelmed in many counties because numbers of new property owners are increasing rapidly (Gary Valentine, Natural Resources Conservation Service, personal communication). Current and past natural resource policy has focused primarily on providing financial incentives to farmers and ranchers to voluntarily conserve natural resources or to assist them in improving or sustaining their agricultural operation. Few studies, with none in Texas, have been conducted to determine if this subsidy approach is the best way to promote adoption of sound conservation practices for all landowners, including newer, less traditional landowners. Studies that have been conducted, mostly in the cornbelt states of the Northeastern U.S., have led to doubts regarding the effectiveness of the subsidy approach (Kluender et al. 1999; Kraft et al. 1996, Raedeke et al. 2001; Variyam et al. 1990). Additionally, multiple studies have been conducted, some as early as 1984, that suggest that most landowners value the ‘quality of life’ aspects of owning land over the productive ones (Pope 1985, Pope 1987, Torrell and Bailey 2000). The question arises, then, of whether there may be more efficient and effective ways of promoting conservation adoption by a larger variety of landowners in addition to the currently implemented subsidy approaches. Because many new landowners are placing their

management emphasis in areas other than traditional agricultural production they may have limited need for traditional incentives.

Peterson and Horton (1995) identified 3 core value systems that guide farmers in their decisions: (1) common sense; (2) independence; and (3) a unique human-land connection. They suggest that effective conservation programs (those likely to be accepted and implemented) should reflect those value systems. Their study used informant directed interviews to evaluate the ideas and motivations of 28 landowners who had been identified by various government agencies as 'good interview candidates'. Theoretically, therefore, the values listed above represent those more traditional landowners who have regular contact with government agencies. One can only wonder, then, if these value systems are consistent among other groups of landowners (e.g. absentee landowners, recreational landowners).

Steinbach (2001) correlated size of property with landowner characteristics and management emphasis in Gillespie and Washington counties of Texas. A study in South-Central Missouri concluded that there are significant demographic differences between landowners that are interested in natural resource incentive programs and those who are disinterested (Raedeke et al. 2001). If predictions can be made about landowners' likelihood for adoption of and participation in programs based on landowner characteristics and profiles, and if there are differences in the motivations of newer, less traditional landowners, significant changes in state and federal natural resource policy may be needed.

The Leon River Restoration Project (LRRP) created an ideal situation for discovering the significance of differences in attitudes and motivations between newer landowners and more traditional landowners, and the implications these differences may have on the effectiveness and efficiency of current natural resource programs and policies. This multi-agency, collaborative effort to improve the habitat of 2 endangered species, the black-capped vireo (*Vireo atricapillus*) and the golden-cheeked warbler (*Dendroica chrysoparia*), seeks to simultaneously improve groundwater yields and forage production throughout the Leon River Watershed. Through landowner cost-share agreements with several cooperating agencies and organizations, selective brush control is carried out on private lands in areas of potential habitat for the targeted birds. The creators of this project have innovatively taken funding provided by sources including the USDA (through the Farm Bill), Texas Department of Agriculture, Environmental Defense, and The Nature Conservancy, and used local, private individuals to promote and facilitate many aspects of the program. The program has, therefore, attained widespread support and participation from private landowners, despite its focus on endangered species. Due to this widespread support and the positive impact the LRRP has had on endangered species habitats throughout the watershed, the project has been widely publicized, resulting in many landowners who did not participate having a fairly strong familiarity with the project.

The multiple issues encompassed by the LRRP and its wide understanding by landowners provided a unique opportunity to facilitate conversations with landowners regarding a wide range of issues. I used an informant-directed interview process to

identify the attitudes and motivations of landowners in the Leon River Watershed regarding their management activities and participation, or lack thereof, in government conservation programs. Specifically, my objectives were to answer the following questions.

1. Are there identifiable differences between “traditional” landowners and “newer” landowners?
 - a. In their ownership objectives?
 - b. In their decision-making regarding range and wildlife management?
 - c. In their program participation and contact with agencies?
 - d. In their demographic and property characteristics?
2. Can landowners be grouped into categories that will represent predictable responses to various types of conservation programs?
3. What kinds of contingencies will a decision for or against involvement in an endangered species conservation program be based upon?

Endangered Species

Private landowners have historically been disenfranchised by the unintended consequences of policies enacted by state and federal government entities regarding endangered species. The primary reason for this: failure of policy-makers to understand the ideals and motivations of landowners and the implications of such on their actions. The endangered species issue has been plagued by many misunderstandings and much miscommunication between agencies and private landowners in the past, all but

paralyzing conservation and management strategies in many areas dominated by private lands (Benson et al. 1999; Wilkins 2000).

Most landowners are believed to have an extremely negative view of endangered species policy, and to have no desire to conserve habitats for these species. Most Americans, including landowners, place value on endangered species conservation (Benson et al. 1999; Turner and Rylander 1998; Wilkins 2000). However, due to the fact that 37% of the threatened and endangered species in the US are found on private land, those that own that land many times are left to shoulder the entire burden of management, with little or no thought to the owner's inherent additional need to create long-term revenue from their property (Turner and Rylander 1998; Wilkins 2000). This is only the beginning of the Federal Government's Endangered Species approach to management that levies disincentives to private landowners for conservation.

The United States Fish and Wildlife Service (USFWS), the agency charged with administration of the Endangered Species Act tends to display the attitude that, if landowners are not strictly regulated, they will intentionally destroy endangered species habitat (Benson et al. 1999). This assumption that landowners lack a sense of stewardship for wildlife is many times expressed with the strategy of levying strict regulations on landowners instead of empowering and educating them as to the values of and techniques used for management of endangered species populations. Due to this current federal strategy for endangered species conservation, landowners have become extremely wary of government involvement in areas of potential endangered species occupation. Many landowners in such areas have been known to adopt the policy of the

3-S's ("shoot, shovel, and shut up!") rather than comply with endangered species regulations that would inevitably infringe upon their constitutionally-derived private property rights.

Despite these historical road-blocks, the LRRP has gained wide-spread support for endangered species conservation from private landowners. I was interested in discovering what types of contingencies would entice landowners to participate in such programs.

STUDY AREA AND HYPOTHESES

The Leon River Watershed encompasses 4 counties in Central Texas (Figure 1.1). Bell County is the most urban of the 4 counties, with the metropolitan areas of Temple and Killeen within its borders, and Comanche County is the most rural.

The 2 most urban counties, Bell and Coryell, have exhibited a greater than 50% increase in market values for land in the last 10 years, while the other 2, Hamilton and Comanche, have remained relatively stable (Wilkins et al. 2003). When a gap is present between agricultural productive values and market values for land, it is often an indicator of an increase in consumptive (or recreational) interest in the land (Pope and Goodwin 1984, Wilkins et al. 2003). I hypothesized, therefore, that ownership would be most heavily weighted toward non-traditional, or recreational, interests in Bell County, and most focused on agricultural production in Comanche County, with Coryell and Hamilton counties exhibiting a gradient of those values in between. An ownership size gradient was also present in the counties, with smaller properties being more common in the urban counties and larger ones being more common in the rural counties (information

based on County Appraisal District Parcel Information). This also supported my first hypothesis. Secondly, I hypothesized that using easily identifiable ownership characteristics such as proximity to urban areas and ownership size, and adding factors such as tenure, residency status (absentee or resident), income, education level, and other independent factors, predictions could be made about landowners' likelihood of participation in various types of programs and at various levels.

When designing social science studies, one must seriously consider the pros and cons of available methodologies. While quantitative questionnaires can be useful, their utility is limited in dealing with the complexities of thought processes, context, or underlying reasons for an informant's answers (Waitzkin 1993). Qualitative methods, alternatively, provide a means for a researcher to uncover deeper meaning systems within a respondent's discourse by being more of an observer than a questioner. The use of qualitative methods, however, is many times met with distrust and resistance by those who consider them a form of "soft science" full of personal bias (Denzin and Lincoln 1998). One of the most positive aspects of qualitative research for social sciences lies in its ability to allow respondents to form their own categories of answers rather than being constrained by the multiple-choice groupings formed by the researcher (Schutt 2001). Peterson et al. (1994) promotes the use of ethnographic approaches when dealing with landowners and the determination of their value systems regarding activities on the land. It is merely imperative that a researcher recognize both the merits and limitations of chosen methodologies, and diligently work to minimize personal bias that can be imposed without special attention during the analysis process.

METHODS

Landowner Selection, Interview and Analysis Protocol

I used a methodology that would combine the merit of both quantitative and qualitative techniques to explain the process by which landowners make decisions regarding management of natural resources and their involvement in natural resource conservation programs.

Following approval to conduct research on human subjects by the Internal Review Board at Texas A&M University (Appendix A), the landowner selection process began. Landowners in each county were selected based on 3 size categories identified by Wilkins et al. (2003) as being representative of the majority of Texas' Ranches: (1) 41-202 ha (2) 202-809 ha, and (3) ≥ 809 ha. I refer to size categories, simply as "small", "medium", and "large". Because of the wide range of government programs available to landowners, I limited my study to landowners who would likely be eligible for rangeland improvement programs (e.g. programs that would subsidize brush control, prescribed fire, other types of wildlife habitat improvement, or grazing management).

Using aerial photographs and parcel information obtained from county tax appraisal district offices, I arbitrarily selected properties dominated by rangeland. This allowed me to focus on properties that could feasibly support wildlife populations and would likely be eligible for the afore-mentioned types of incentive programs. I selected 5 landowners per size category in each of the 4 counties, giving me a total of 60 respondents in my sample.

Landowners were contacted by phone and interviews were scheduled accordingly. Interviews were conducted face-to-face, and consisted of the administration of a quantitative questionnaire followed by the informant directed interview. All interviews were recorded and transcribed in their entirety at a later date. The questionnaire was administered first and was the vehicle for determining landowner and land ownership characteristics that could later be correlated with responses to the qualitative interview.

I asked landowners a variety of questions in order to assess their participation in, knowledge of, and ideals regarding government incentive programs for natural resources. In my quantitative questionnaire, in addition to demographic and ownership questions, I asked landowners if they had in the past or if they were currently participating in any federally or state funded incentive programs. Secondly, in the qualitative portion of the interview, I utilized floating prompts to obtain information from respondents regarding who they looked to or trusted for information, who they would be most willing to work with on natural resource improvement programs, what types of incentives would benefit them the most, if they would be willing to participate in programs to promote endangered species habitat, and if so, who they would be most likely to work with.

The qualitative portion of the interview was conducted based on the *Active Interview* protocol advocated by Holstein and Gubrium (1995), in which a series of fairly general, open-ended questions are asked in an effort to facilitate active conversation with the informant. Following specific questions, the informant literally orchestrates the direction of the conversation with the interviewer merely using floating prompts from

time to time to stay on subject. Peterson et al. (1994) and Higgins (1991) also advocate the use of such methods in discovering how people order and assess their everyday world. Within this portion of the interviews, I hoped to uncover meaning systems within landowner discourse that would aid us in understanding what thought processes guided them in their decisions about wildlife and habitat management, participation in natural resource programs, and motivations for owning land.

Holstein and Gubrium (1995) emphasize the need for interviewers to be aware of the cultural and ethnographic background of the community in which they are interviewing in order to ask good questions and accordingly be able to interpret the answers given. For this reason, I resided in the Leon River Watershed for 5 months prior to the beginning of the interview process and throughout the summer in which the majority of the interviews were conducted. Information gained from the interview process was supplemented with field notes taken while I was immersed in the community.

The initial portions of my analyses actually took place as the data was being collected, using the concept of grounded theory development (Strauss and Corbin 1998). This concept, which encourages the evolution of theories as the data collection is taking place by constantly bouncing between analysis and data collection, ensures that the developed theories are grounded fully in the context from which they are collected. Theories are developed as the interviews take place, then as subsequent interviews are conducted, the interviewer uses those informants to validate the theories by asking probing questions whose answers would either authenticate or refute the theories.

The remaining analysis was conducted as an adaptation of a process used extensively by Tarla Rai Peterson to determine landowner attitudes and motivations. Using this process, I systematically read through each interview transcript and examined it for *thematic content* (Peterson et al. 1994). Essentially, I sought out and documented phrases used routinely by my informants in an attempt to understand the values which guide their decisions for land management, and what types of incentives would motivate their land management actions. As cross-cutting themes began to emerge, transcripts were divided into groups, and re-analyzed, developing the themes as the analysis took place.

Following the development of themes relating to my various areas of inquiry, the thematic groupings of landowners were analyzed against their land ownership, and landowner characteristics obtained from the quantitative questionnaires. The purpose of this final step was to identify predictors of various landowner values and motivations that could be used by agency personnel to profile various groups of landowners concerning their likelihood of adoption of particular programs.

Endangered Species Contingency Analysis

For the endangered species portion of my analysis, I was interested in discovering the factors a decision by landowners to participate in endangered species conservation would be contingent upon. Would an endangered species conservation program merely have to accomplish something of benefit to the landowner for him to become involved in it? Or, would it simply have to be initiated by a local entity? To attain this information,

I asked the following question: How would knowing that endangered species conservation was involved impact your opinion of a brush or water incentive program?

As with the other portions of the qualitative interview, I used a broad, open-ended question that allowed the respondents to form their own groupings of answers. This portion of my data was analyzed by identifying broad groupings of similar initial responses, and then, using the contingencies created by the respondents, I grouped them into final clusters of related responses.

RESULTS

I obtained a 74.7% response rate, and 84.2% of non-respondents were due to scheduling conflicts. Therefore, I considered non-response bias to be minimal.

During the grounded theory development stage of my analysis, I identified 3 broad categories of landowners present in my project area. The presence and significance of the profiles was subsequently validated and developed more fully through thematic analysis and exploration of ownership characteristics. These categories represent groups of landowners with similar ideas and values regarding land management and government involvement in natural resources. I will refer to these groups, or profiles, using names that I have assigned to them that I feel embody the values each group represents; 1) “Born to the Land”, 2) “Ag. Business”, and 3) “Re-Born to the Land”.

Landowner Profiles

Born to the Land.-- This group exhibits a very strong “connection” to the land. They speak of the generations that have farmed or ranched on the land they now own,

and they speak of a strong sentimental attachment to that particular piece of geography. Agricultural production is a source of their livelihood, and though many of the landowners in this group recognize the potential value in a sophisticated wildlife operation, many are still not willing to make the sacrifices necessitated by such a transition. While, in many cases, they are struggling to make ends meet, they are not willing to sacrifice their way of life for the additional income that capitalizing on wildlife enterprises would provide. Each of these landowners exhibited a strong sense of stewardship or responsibility for the land that was under their authority. One Comanche county gentleman said, “All I hope is that my grandkids have a high respect for the land... The good Lord said you are a steward of the land, and I believe you have a responsibility to do what’s right for it.” This spiritual connection to the land and resources was also a very common thread among this group of landowners.

Born to the Land owners continually spoke of their disapproval of government involvement in their operations. A Coryell County gentleman expressed his feelings this way: “I don’t really think it’s right for the government to start paying me to do something I oughta do anyway.”

A rancher in Hamilton County who had owned his place since 1972, said the following: “Oh, I don’t know that the assistance is really necessary. I’m a believer in, for the operator to make his own decisions and exercise his own program, you know. You know, instead of being dependent on the government.”

They wish that farming and ranching were not subsidized, however most of them are currently, or have (this Hamilton County rancher included) in the past participated in

some form of subsidy; the most common being drought relief or other disaster-related payments.

This disparity between values and needs of ranchers was a common thread throughout the Born to the Land group. They tend to strongly desire independence from the government, but simply do not have financial resources needed to back up that desire. They, therefore, prefer short-term, locally implemented programs. Additionally, many in this group have a strong desire to do what is best for their property, therefore programs that they interpret as being designed to empower them to do those things are more attractive to them than a program that seems to be promoting what the government thinks is best for their property. A Bell County widow put it this way: “I don’t think I would want to take part in a government program”...“I want to be the best managers that I can on our land, so if the government provided a program that would meet our needs, I would consider it. That doesn’t mean I would do it, but I would [consider it].”

Specifically, most in this group indicated that the programs most desirable to them would cost-share for management practices such as brush clearing, or ranch improvements including cross-fences and stock ponds. Many of the landowners in the Born to the Land profile spoke highly of field days that they had attended and expressed a desire for more programs of this nature. These landowners were extremely wary of endangered species conservation programs, but most were willing to consider a program that was implemented locally and that was administered with “common sense” - that contrary to what they had been exposed to previously. Those landowners that had been

exposed to the Leon River Restoration Project used it as an example of a program that they would be interested in participating in.

The agencies mentioned most often by this group were the Natural Resources Conservation Service (NRCS) and Farm Service Agency (FSA) (names which most landowners use interchangeably) and their County Extension Agent (CEA). The landowners that spoke highly of NRCS/FSA and their CEA, seemed to appreciate the local connection these individuals had, usually in terms of whether they were “from around here”, or they just seemed to “have a good head on their shoulders about ranching in these parts”. The local connection that many landowners associated with some agency personnel translated for many into confidence in the agency they represented. A young landowner from Hamilton County, when asked if there is anyone he looked to or trusted for information about brush control, said the following (R = Respondent; I = Interviewer): R: “Well, yeah, neighbors and the government. I mean, when you make friends with the government people, hopefully they’re tellin’ you the truth (laughing).

I: “When you say ‘government people’, who are you referring to?”

R: “Soil Conservation people, and your Extension Agents.”...“I’ll - you get to know ‘em and then, I mean, that’s about it. I mean, you have to get to know ‘em and like ‘em and believe in ‘em to trust them”... “and you know, you see him (the Extension Agent) doing a good job with the kids, so...”

The distinction between state and federal government seemed to have much less of an impact on these landowners’ perception and trust of agencies than did the relationship they had developed with their local field personnel. In fact, it was not

uncommon for landowners to refer to NRCS/FSA as a “local” entity - or to their programs as “local” programs - despite the fact that both entities, falling under the direction of the Department of Agriculture, are federal in nature. A Coryell county farmer articulated this point as well as the point above when speaking of the Environmental Quality Incentives Program (EQIP) (administered by NRCS) involvement in the LRRP: “Uh, the people that are - that are initiating the program are, uh, people that came out of my walk of life. It’s affecting me more local, uh, personal than some of the national programs...”

NRCS, when recognized by my respondents, was most commonly associated with water improvements, fence building, and other ranch improvement programs, and occasionally in regards to brush control. FSA, when a distinction was drawn between it and NRCS was spoken of most commonly in reference to the Conservation Reserve Program (CRP) and disaster-related payments. On a similar note, most landowners in this profile group were somewhat familiar with the CRP program and disaster-related programs, but fewer had heard of EQIP or the Wildlife Habitat Incentives Program (WHIP).

While most Born to the Land owners were familiar with NRCS/FSA and were fairly satisfied with the services they had received, many also articulated a few consistent complaints regarding the agencies. Many landowners were disgruntled that they had requested tank or pond construction, and field personnel had refused to assist with the construction because they claimed that the chosen area would not work well. Secondly, numerous landowners mentioned that many good programs were available from time to

time, but by the time the NRCS or FSA newsletter arrived, the fuse was too short to get all of the paperwork completed in time; or that the amount of hassle, paperwork, and strings attached were not worth the benefits possible through participation in the program. Lastly, some landowners were resentful that “new” landowners come in and get assistance from the government – they feel that only actual “producers” should be privy to government assistance, as this Comanche County gentleman expressed, “I think it needs to go to producers, uh, that’s here now, not new landowners. I’ll put it that way. I’m not against the new landowners, but”... “a lot of times they come, they’ve got money to [do] the [things] that the original landowners just don’t have”.

County Extension Agents were commonly spoken of in terms of information regarding chemicals for brush control, field days attended, and their 4-H work with children or grandchildren.

In mentioning wildlife, these landowners rarely mentioned agencies, but those who did mentioned Texas Parks and Wildlife (TPW) in a positive light, and the USFWS in a negative light. When asked if he would consider participating in some form of wildlife management program on his property, one gentleman from Coryell County who had dealt with USFWS on Fort Hood said, “That would only depend on who was running the program...Uh, because, like Parks and Wildlife – possibly. Fish and Wildlife, I don’t like... I don’t get along with real well”... “I don’t have any problem with wildlife fitting in [with my livestock operation] - any whatsoever. Uh, that’s why I side with TPW, because they want... to work with the landowner, versus Fish [and Wildlife], half the time want to work against the landowner, is the way I look at it.”

Overall, however, these landowners were less likely to have dealt personally with TPW than they were to have dealt with the previously mentioned agencies. Most of them, additionally, exhibited a fairly limited knowledge of the services available to them from TPW. Again, it is important to note that most of these landowners, in general, do not place a significant amount of their management emphasis on wildlife, therefore they have no perceived need for assistance from TPW. Most of the landowners in this category that are attempting to manage for wildlife have had contact with TPW and have been satisfied with the services provided. The most common references to TPW within this group were from Hamilton County landowners who had been approached by or involved with a former biologist in that county who had been influential in forming several Wildlife Management Cooperatives.

This Born to the Land profile represented 47% of the landowners I interviewed, and 56% (22,713 ha) of the total area sampled.

Ag. Business.-- The second distinct profile of landowners that I identified did not articulate a strong connection to the land, as a group seemed much more open to the thought of selling their land than did either of the other 2 profiles. A Bell county landowner in the Ag. Business profile articulated this attitude well when he said, “There will always be a [Wilson]¹ ranch. But, I don’t know if it will always be right here” This group of landowners seemed to be more “connected” to their “business” than they were to the piece(s) of geography upon which the operation was located. A Coryell County man, when asked how many years he estimated he would own his property, said, “Well, the property’s for sale right now. So, uh, but if I sell it, I will do a land swap or

something. I'll stay in the ranching business..." "The property...in this area has got to be too valuable to ranch on...you know. [It would] be a fluke deal if I sell it, but if I sell it, I'll just move on down the road somewhere."

This group was maximum profit oriented - everything revolved around the bottom dollar. Agricultural production and wildlife enterprises are a source of pride for these individuals, rather than being a significant source of their livelihood. Most of the respondents that were placed in this category came from successful business backgrounds and were presently focused on creating a profitable agricultural business.

This group was the least likely to be motivated by any type of incentive or subsidy program. They tend to have similar values as those placed in the Born to the Land group, however, they are set apart by the financial resources they have within their grasp to back up those values. This fact is articulated well by a Hamilton County absentee landowner whose day job as an attorney supplies the financial resources he utilizes to improve his ranch and cattle operation. His statement is in response to a question as to why he thought people like himself seemed not to utilize government assistance, as he had stated earlier in the interview. He said, "People that are financially independent, I would think, would have less use for government programs". This same gentleman went on to say that he appreciated getting management information from the government, but he just really wasn't interested in the hassle involved in participation in government programs. "There are too many layers of bureaucrats, so I'll just get the information and do it myself, the way I want to do it. When I want to do it, I mean, I'll listen to them, but I just get really frustrated... between levels of control..."

Another echoed the same mentality when he said, “I’m a lot better manager than the government is.” Several landowners in this group, including the 3 quoted above, mentioned that the most beneficial government programs are disaster-related programs. Ag. Business landowners will be most likely impacted by assistance and personal attention by those they see as experts in a field in which they are interested (e.g. private consultants, university professors, extension specialists, or other noted experts). The owner of a Bell County deer breeding and exotic hunting operation said the following: “I mean, I have Dr. [a well-known university professor] on our payroll. I just feel like he understands where we’re coming from... you know, not like your typical TPW guy that’s never out in the field.” They, additionally, are unlikely to participate in programs involving a long-term commitment, and any programs they are persuaded to participate in are purely facilitative in nature (e.g. This group would not likely be persuaded to participate in a program to clear brush for the reason of watershed health; however, they might likely participate in the same program for the purpose of facilitating an increase in stocking rates on their own property).

Most of the landowners in this group were not open to endangered species conservation in the least. They were very adamant that programs such as those promoting endangered species habitat conservation were simply a way for the government to gain access to private properties. One Hamilton County man said, “Yeah, I wouldn’t want it [to be involved in a program that would promote endangered species habitat]. Wouldn’t want anything to do with that. Be a Trojan Horse.”... “Yeah, that’s like that CRP is a Trojan Horse... It’s hurt a lot of people.”

Similarly, another Hamilton County man, although he said he did place some value in conservation of threatened species, said, “That [participation in a government endangered species program] would be hard because they (the conservation agencies), or environmental whackos, I call them, (laugh) would start without a lot of credibility with me.” Several of the landowners in this profile group made similar comments; mostly preceded by horror stories they had heard about endangered species issues in other parts of the country.

When asked about agency involvement, Ag. Business landowners did not speak of specific agencies often, however some of the landowners would mention 1 or 2 agencies that they had (usually) received information from, or (less often) worked with on some form of program. Those agencies included: TPW, NRCS, FSA, and CEA. The attitudes regarding these agencies varied extremely by individual, and while most of these landowners had some contact with the agencies from time to time, their awareness of services offered was fairly limited. This group did seem to have stronger ideals regarding the role of state vs. federal involvement, often saying that they thought farm and ranch assistance would be better handled at the state or county level (as opposed to Federal oversight).

Ag. Business landowners were the smallest profile group, representing approximately 19% of the landowners interviewed and 32% (13,080 ha) of the total area sampled.

Reborn to the Land.-- My third profile group also exhibited a strong connection to the land. This group consisted mostly of individuals who, as with the previous group,

have come from successful business backgrounds, but unlike the Ag. Business group, their attention now is on recreation and getting back to their roots. Their focus is on the aesthetic and recreational value of their land, and they feel strongly that they have a responsibility to “take care of it”. A Hamilton county woman said, “I’ve been around the world a little bit, and having a piece of land is such a gift... I feel that I want to protect it, and I want to make it healthy and be able to pass it on to our kids”.

Any agricultural or wildlife enterprises in place on these properties are primarily for personal satisfaction. In most cases, these landowners are not worried about turning a profit, yet some still operate on a limited budget. Quotes like this one by the owner of a small property in Bell County emphasize this point well: “Yeah, that’s really why I do it – it’s for enjoyment. It’s...matter of fact, there’s probably no way I would ever turn a profit if you consider all the money we’re putting into it. But, I enjoy...I enjoy all those things, so...” Another gentleman expressed similar feelings when he said, “Unfortunately, it’s not the money that inspires me to keep the land...it’s other things”.

One characteristic that sets this group apart from the other 2 is their acknowledged need for information, not only of available programs and services from agencies, but regarding management and conservation of natural resources and agriculture in general. These landowners are very interested in being ‘taught’ about management, but generally do not know where to go for information. For this reason, many of them actively seek educational opportunities and knowledge regarding natural resource management. They have a passion for “doing what’s right” on their property, and they are willing to listen to anyone who can give them information about that.

Of my 3 profile groups, landowners in the Re-Born to the Land profile group are the most likely to respond positively to the widest range of programs, yet they are the least likely to have participated in programs in the past. Given that landowners in this group are most commonly focused on the recreational and aesthetic aspects of their property, and therefore put little emphasis on the profit margin their operation generates, I found that this group had the least familiarity with natural resource agencies and programs. When asked what types of programs he would be interested in, the Bell County landowner quoted above said, “Just, we’re totally ignorant of ‘em, I’m gonna say at this point...But I would be eager to find out if there’s any of ‘em [that would benefit us].”

These landowners are generally not opposed to receiving funding from incentive programs for conservation, they simply are not aware of what is available to them, in most cases. The following gentleman, who inherited his Coryell County property from his father, when asked about program participation, said that the agency promoting the program would not be a factor in his decision of whether to be involved. He said, “Oh, sure [I’d work with] anyone. Yeah. As long as the program makes sense... and I think anything that improves the quality of your property is going to make sense.”

Very few of the respondents in this group were aware of NRCS or FSA, or of the services they provided to landowners. A few landowners who had farmed or ranched on the side for a long time, or who had inherited their property from a Born to the Land owner, were familiar with NRCS and FSA. I asked one such landowner what drew him to NRCS for assistance. He said the following, “I guess the money. But, you know, I

guess their knowledge. See, I was pretty green on this, didn't know a lot about like soil... And like, if I had to do it over again, this coastal - I probably wouldn't have planted coastal."

A larger proportion of Re-Born owners, especially those focused on hunting, mentioned having some interaction with TPW biologists, but they still represented the minority. The most commonly mentioned agency was Texas Cooperative Extension (TCE) – usually referred to simply as "A&M". Landowners commonly mentioned TCE in reference to information they had received in the form of publications or field days attended.

This group is likely to obtain a large degree of management information from incidental conversations with neighbors and agriculture professionals (feed store, chemical or seed company employees, and dozer operators were mentioned several times). They are also more likely to obtain information from the popular media (magazines, newspapers, the internet, and even television and radio) than are the other groups. One man, an attorney and Hamilton county absentee landowner, said the following about wildlife management information he had obtained: "I've looked at stuff on the internet before...um...maybe it was Parks and Wildlife website, or even some of those...um...animal forage sites, you know... Sometimes they'll have some information about brush control and food plots."

While many in this group are willing to be involved in subsidy and cost-share type programs, they are most interested in technical assistance and educational programs.

Any program that will aid them in increasing their knowledge and skills regarding management of their property, is commonly appealing to this group.

When speaking of endangered species concerns, Re-Born to the Land owners were most likely to look favorably on participation in an endangered species management or conservation program. Because these landowners are often very 'connected' to the land, and have a passion for conservation, many of them think of endangered species management as a valiant effort that they would be proud to be a part of.

As mentioned before, most of these landowners exhibited an obvious lack of awareness of the programs and services available to landowners from natural resource agencies. Although many of these landowners knew that TPW and their CEA existed, they were not aware of the services available to them. The previously quoted attorney was very inquisitive when I mentioned the habitat and wildlife management services that TPW biologists provided to landowners. He asked, "What do they do? They come out and just kind of assess your habitat?"... "And that's through Texas Parks and Wildlife?"... "Now, do you have to hire them, or is that a free deal?"... "Now...NRCS. Is that a state or federal agency?" These types of questions were very common in speaking with this group of landowners.

The Re-Born to the Land profile represented 33% of the landowners I interviewed, and approximately 4,760 ha or 12% of the total land area sampled.

Demographic Indicators

My first 2 study objectives dealt with developing landowner profiles and understanding their influence on management actions and participation in government incentive programs. Thirdly, I wanted to identify demographic and property characteristics that could be used as indicators of the various profile groups. The results of that analysis are explained below.

Table 2.1 summarizes the most recognizable characteristics of the landowners in my study that can be used to identify a landowner with a particular profile group. This table compares each profile group by county and as a whole within the 4-county area that I surveyed.

The Born to the Land group owned increasingly more land as I progressed along the urban to rural gradient. The landowners that make up this group had a mean age of 60.1 years, reported an average of 37.6 years of ranching experience, and farm-related activities made up approximately 32% of their total household income. Alternately, the Ag. Business landowners seem to hold more land in the more urban counties. These landowners, on average, were 53.7 years of age, and had almost 25 years of ranching experience.

Table 2.1. Relevant demographic characteristics of profile groups by county.

Landowner Profile	County	<i>n</i>	Area Managed (ha)		Age (yrs)		Ranching Experience (yrs)		% Income from Ranching	
			<i>X</i>	<i>SE</i>	<i>X</i>	<i>SE</i>	<i>X</i>	<i>SE</i>	<i>X</i>	<i>SE</i>
Born to the land	Bell	4	211.9	604.4	57.8	7.1	41.0	7.3	38.0	15.0
	Coryell	9	600.8	402.9	65.2	4.7	42.6	4.8	31.3	10.0
	Hamilton	6	1282.9	493.5	61.3	5.8	29.8	5.9	18.3	12.3
	Comanche	8	1994.2	427.3	54.5	5.0	36.3	5.1	41.3	10.6
	TOTAL	27	1022.5	244.1	60.1	2.8	37.6	3.3	32.4	7.0
Ag. Business	Bell	3	1659.2	697.9	53.0	8.2	26.7	8.4	40.0	17.3
	Coryell	5	1046.0	540.6	52.6	6.3	21.6	6.5	42.0	13.4
	Hamilton	2	1659.2	854.7	58.0	10.0	34.0	10.3	6.5	21.2
	Comanche	1	485.6	1208.7	53.0	14.2	15.0	14.5	15.0	30.0
	TOTAL	11	1212.5	430.9	53.7	3.5	24.6	3.1	32.5	6.8
Re-Born to the Land	Bell	5	195.6	540.6	55.8	6.3	7.0	6.5	4.4	13.4
	Coryell	2	286.5	854.7	68.0	10.0	0.0	10.3	0.0	21.2
	Hamilton	6	248.4	493.5	50.3	5.8	11.0	5.9	2.3	12.3
	Comanche	6	290.5	493.5	52.7	5.8	10.7	5.9	10.8	12.3
	TOTAL	19	255.2	307.2	54.4	3.1	8.7	2.5	5.3	5.0

The Ag. Business group reported that an average of 32.5% of their total household income came from activities on their land, however, this percentage ranges from 40% (Coryell County) and 42% (Bell County) in the more urban counties to 6.5% (Comanche County) and 15% (Hamilton County) in the more rural counties. Finally, the Re-Born to the Land group, with the smallest land-holdings of the 3 groups, gradually increases in size along the urban to rural continuum, with an average overall property size of 251.8 ha.

Re-Born owners were 54.4 years of age, on average, reported an average of only 8.7 years of ranching experience, and only generate 5.3% of their total household income through activities on their land.

Using Tukey's HSD (Honestly Significant Differences) I found that county of ownership had no significant impact on any of the variables in Table 2.1. Profile, however had significant affects on size ($p = .002$) and ranching experience ($p = 0.000$). Profile had no impact on age or income. The mean size of Re-Born to the Land properties was significantly smaller than both Born to the Land and Ag. Business properties ($p = 0.005$) and ($p = 0.000$), respectively. Differences between Born to the Land property sizes and Ag. Business property sizes were not significant at the $\alpha = 0.05$ level.

When I analyzed my profile groups against my predetermined size categories (Table 2.2), I found the following: Born to the Land owners are most common in the middle size category; Ag. Business in the large category; and Re-Born to the Land in the

small category. As mentioned above, only the Re-born to the Land group exhibited significant differences in size from the other groups.

Table 2.2. Landowner profile group by size category.

Profile Group	Size Category		
	Small	Medium	Large
Born to the Land	22%	45%	33%
Ag. Business	9%	18%	73%
Re-Born to the Land	58%	37%	5%

Born to the Land owners most commonly reported long tenure on their land, with 77% of those interviewed having owned their land at least 25 years (Table 2.3). Ag. Business owners were more likely to own land in the middle tenure ranges, but were more evenly distributed among all ranges than the other 2 groups. The Re-Born group, on the other hand, was more likely to have owned their land between 3 and 25 years.

My final indicator of profile group was that of residency status. As indicated in Table 2.4, those landowners that lived on their land were 55% more likely to fit the Born to the Land profile than the other 2. Similarly, those landowners that did not reside on their property were 46% more likely to fit the Re-Born to the Land profile. The Ag. Business landowners were much less easily predicted based on absenteeism.

Table 2.3. Landowner profile group by tenure.

Profile Group	Tenure				
	<3 Years	3-10 Years	11-25 Years	>25 Years	>1 Generation
Born to the Land	4%	8%	11%	35%	42%
Ag. Business	10%	30%	20%	30%	10%
Re-Born to the Land	10%	42%	21%	11%	16%

Table 2.4. Landowner profile group by residency status.

Profile Group	Residency Status	
	Resident	Absentee
Born to the Land	55%	38%
Ag. Business	21%	17%
Re-Born to the Land	24%	46%

Endangered Species Contingencies

Thirty percent of my respondents, representing 29% of the land area, had an initial positive response toward a program to enhance endangered species habitat. Of those, 18% were willing, and many times excited to participate in a program as described in the question. One woman even went so far as to say, “Oh, I think that would be awesome! That would be fabulous! I would dig getting into making sure something stayed around a little longer”... “You know, we try to be stewards of the property...”

Another man said that an endangered species provision in a program would be an “additional incentive” for him.

The remaining 12% of the respondents with an initial positive response to the question was made up of 5% who said that the program would have to fit within their management goals; 5% who emphasized the credibility of the person or entity administering the program, the importance of ‘common sense’, and the program being administered at a local level; and only 2% who said they would participate if they were compensated monetarily.

Only 11% of my respondents, representing 14.3% of the land area in the study, were adamant that they would not participate in a program that involved endangered species. These respondents had 2 dominant reasons for their response; 1) they did not participate in government programs in general, or 2) they had heard too many stories about people losing their private property rights because of endangered species.

The remaining 59% of my respondents (56.3% of the total land area sampled) had an initial negative response to the question, but eventually said that they would

participate in a program if various contingencies were met. A total of 40% of the respondents interviewed, who represented 49.7% of the land area sampled, merely desired that a program be administered with ‘common sense’ and with the assurance that they would not lose their private property rights, for them to be willing to participate. This group also mentioned the importance of administration at a local level, and the ability to hire one’s own operator for a brush-related program. Seven percent said that they would not be involved in such a program unless it was an initiative for a ‘valuable’ species. In most cases they were referring to game species – something they were likely to benefit economically from. And 7% said they would not be involved unless the program additionally accomplished something already needed by the landowner (i.e. brush control, reseeding, etc.).

The 5% of respondents not yet mentioned were already under a Leon River Restoration Project contract. These landowners mentioned the cost-share level, the local connection of the project, and the additional positive effects of the project on their operation as deciding factors in their willingness to participate.

DISCUSSION AND POLICY RECOMMENDATIONS

This research was initiated with some broad hypotheses in mind, however, I realized early in the process that the climate in Texas land ownership was more complex than I originally hypothesized. While it would be easy to group landowners into “traditional” and “recreational” categories, I found that the “new” landowners are not all alike. Pope (1985) classified land buyers into 3 groups that he called “producers”, “consumers”, and “investors”. I found that my groupings had similar characteristics as

those Pope identified. In fact, each of my landowners could logically be identified with one of Pope's groupings if they were to buy land today (Figure 2.1). With this in mind, I chose to use more functional, and recognizable descriptors of the profiles I documented, that I was confident would hold a more static and meaningful significance to decision-makers and managers. It will be important, however, to draw on the similarities and overlap between the 2 classifications as decisions are made.

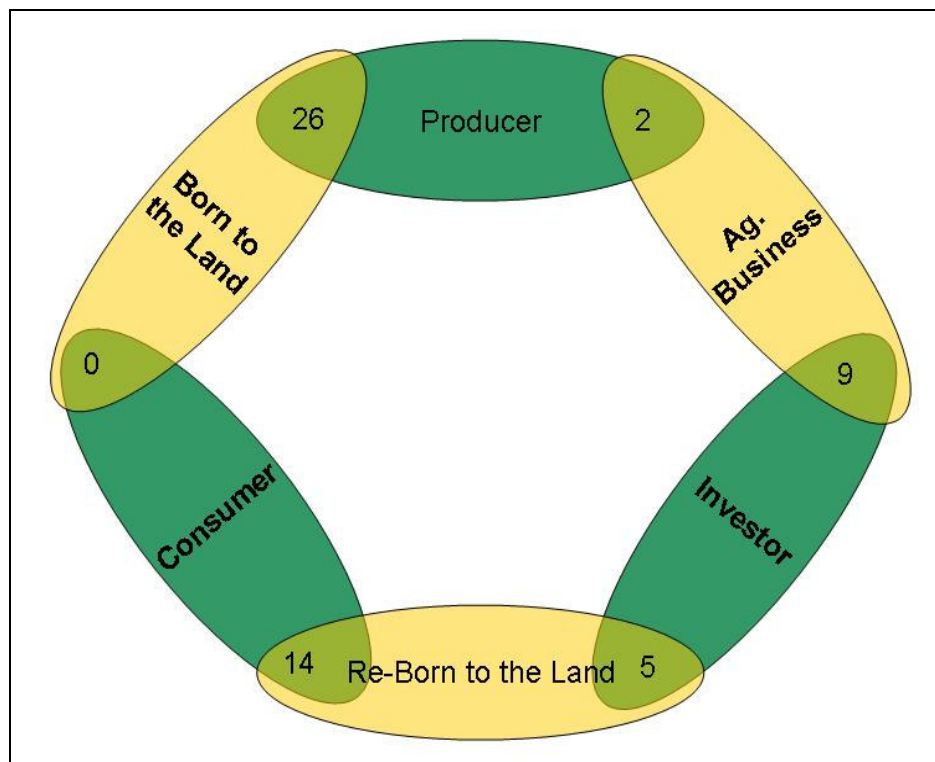


Figure 2.1. Graphic depicting the overlap of Pope's classification of land-buyers, and the landowner classification identified herein. Numbers in overlap areas depict number of landowners in my sample that could logically be identified with Pope's system.

Raedeke et al. (2001) found that many times a landowner's identity as a "farmer" or "rancher" was more important than farm structural characteristics at differentiating between those willing to participate in programs and those not willing to participate. That assertion is substantiated in my study. Each of my 3 profile groups feel strongly about their identity as a rancher and the responsibilities carried by that identity; whether it be that of providing agricultural products for the community, making a living for their family, stewardship of the land, providing recreational opportunities, or proving that land management can be a profitable business. For all 3 of my identified profiles, the notion of 'empowering' landowners to obtain the goals they have for their property through conservation programs, will be an effective strategy for agencies to adopt.

Before discussing some specific policy recommendations I will make based on my study, I would first like to shed light on a few areas in my results that I feel require further explanation.

When I compare the demographic and property characteristic numbers between the 3 groups, I see some interesting trends. Ag. Business landowners typically have the largest properties, with the exception of Comanche County (the most rural of the 4), in which the land holdings of the Born to the Land owners more than quadruple those of the Ag. Business group. Years of ranching experience are highest with the Born to the Land profile, with an average of almost 38 years. Ag. Business landowners report an average of almost 25 years, and the Re-Born landowners come in third, with an average of almost 9 years of ranching experience.

Interestingly, the Ag. Business landowners reported a higher percentage of their household income from their land than that reported by the Born to the Land owners. Due to the fact that the percentages vary so strongly between the urban counties and the more rural ones, I feel that this trend is due in most part to the fact that the Ag. Business owners represented in those more urban counties are operating sophisticated wildlife operations that are drawing a large income at this time. Additionally, I am certain that these landowners did not include in their reporting, the initial capital that they contain possess which provides much of the overhead for their businesses. Related to this is the explanation for the larger properties owned by Ag. Business landowners in the more urban counties. As mentioned previously, each of these properties are sophisticated, commercial hunting operations. The fact that these counties are more urban, provides a larger market for this type of operation. Additionally, the ecological conditions in Bell and Coryell counties are more conducive to wildlife habitat management and therefore wildlife enterprises than are those present in Hamilton and Comanche counties.

Though I initially anticipated that “newer landowners”, those I am now referring to as Re-Born to the Land, would be most common in the more urban counties, I found that they seem to buy land more arbitrarily than I expected. Many of these owners bought the land they now own due to an old family connection to the county in which they purchased it, or other similar motivations. These landowners actually held a larger portion of land in the more rural counties, contrary to what I expected.

I would also like to point out what I think may be a logical explanation of the lack of significant demographic indicators of profile group. It is likely that the sample

size constraints imposed on this project, could have had some effect on significance of some of the variables. Due to the heavy time requirements of the qualitative methods used, sample size was held to a slightly lower level than would be optimal for quantitative analysis. Future studies could explore these potential indicators more fully.

An aspect that should be of particular interest to agencies is that due to the admitted naivety and limited knowledge of conservation and management of natural resources articulated by the Born to the Land group, it is of extreme importance that agencies reach them with sound management principles early in their land management endeavors. If this does not happen, it is likely that these landowners will seek knowledge in other arenas, and may be swayed in their thinking against sound resource management.

The implications of this study for state and federal agencies with missions to educate and provide assistance to landowners and/or enhance the overall conservation of natural resources embodied in private lands can be summarized as follows:

1. Focusing efforts to increase the awareness of available programs and services on the Re-Born to the Land group of landowners will likely result in large increases in the number of landowner participants and/or clients.
2. Securing participation of large-tract landowners, and thus a larger portion of total land area, will require focusing attention and providing services that facilitate the more economic land use goals of the traditional and business oriented landowners.

3. Achieving over-all success will require providing a variety of programs, services and incentives due to the significant and increasing variation in goals and motivations of current-day private landowners.
4. Success in promoting endangered species management to all groups will be greatly enhanced through partnerships that would place local and private entities in the forefront of implementation.

CONCLUSION

The discovery of the 3 groups of Central Texas landowners and their respective ideals and motivations regarding management and program participation for natural resources could have significant impacts on future natural resource policy decisions. In the present, however, agency personnel can also take advantage of this knowledge by being attentive to easily recognizable demographic and property characteristics that will allow them to profile their clientele regarding their likelihood of participation in various available programs. Additionally, the mere approach agency personnel utilize to publicize particular programs could be made more effective by recognizing dominant profiles in a particular county or region of interest and promoting available programs in a way that will likely appeal to that audience.

It is important to note that while there are changes taking place in land ownership in Texas, Born to the Land owners still operate the largest portion of the land that I sampled, and therefore should not be discounted completely. However, in many parts of the state, where land is undergoing high rates of turnover, it is likely that Re-Born to the Land and Ag. Business profile groups are and will continue to operate larger portions of

the real estate. In regions where this is the case, attention should be paid to the influence the presence of these groups may have on the natural resources in their care.

Subsequently, changes may be needed in the availability of particular types of programs in those areas, or at least in the way those programs are marketed to various landowners.

CHAPTER III

UNIQUE LAND ETHICS GUIDING LANDOWNERS' MANAGEMENT DECISIONS

OVERVIEW

The stereotype of a “frontier hero” appears to be the dominant model that is used to describe landowners – particularly ranchers – and this model seems to be used as the basis for developing most current private lands conservation programs. However, some recent studies in Texas, have revealed that some contemporary landowners have developed a different land ethic, a sense of land stewardship as a primary driver behind their land use decisions. Along with this shift, many have even developed a distaste for the frontier hero image. In this study, I sought to determine how landowners express their land ethic, and to determine if there were ownership characteristics that could be used as predictors of different expressions of a land ethic.

As part of a previous study in which I contacted and interviewed 60 landowners in 4 central Texas counties (Bell, Coryell, Hamilton, and Comanche) and sought to understand the values that guide their land management decisions, I analyzed discourse regarding the land ethics articulated by landowners. My results identified 3 dominant groups of landowners with distinct levels of maturity in their land ethic. Landowners in each of the 3 profile groups (Born to the Land, Re-Born to the Land, and Ag. Business) identified in the original study had distinct ethical attitudes that manifest themselves in their rhetoric. Born to the Land owners were characteristically associated with an attitude of stewardship of their land; Re-Born to the Land owners had a romantic

stewardship attitude; and those classified into the Ag. Business group most often displayed a frontier hero attitude. I found that most landowners feel some level of stewardship or responsibility for the land in their care, and therefore will most likely be positively impacted by programs and initiatives that are packaged and promoted as a way of empowering landowners to be the kind of stewards they desire to be on their land.

INTRODUCTION

When Aldo Leopold expressed the concept of a land ethic over 5 decades ago (Leopold 1949), few could have grasped the extent of its application to natural resource conservation and management through the years. His observations and philosophical contemplations have paved the way to a deeper understanding of the relationship between humans and nature. Even to many land managers and landowners who have likely never read Leopold's *A Sand County Almanac*, the land ethic and a spiritual call to stewardship of the land under their influence provide a basis for their every-day land and wildlife management decisions. However, a mechanism for translating land ethics into management action has not been well articulated, or studied.

As part of a study conducted in Central Texas in 2003, focused on the evaluation of landowner attitudes and motivations regarding participation in government incentive programs for natural resources, I uncovered interesting trends involving a clear underlying theme of stewardship that seems to permeate the value systems, and thus guide the decision-making processes of many of the landowners I surveyed (Sanders et al. In Press). That many of today's landowners view themselves first stewards of the land contrasts with some of the historical views of landowners (Peterson 1986), thus

informing policy-makers as to what may be used as more effective strategies for implementing conservation objectives.

Private landowners have evolved in their cultural view of self over time from what Peterson (1986) describes as America's "frontier heroes", who originally settled our continent, to the ranchers and farmers of today. From Leopold's suggestion that "A land ethic changes the role of *Homo sapiens* from conqueror of the land-community to plain member and citizen of it", we see the basis for the apparent paradigm shift in the judgment-guiding value sets of landowners that I have observed in Central Texas. Similarly, I have documented a difference among distinct current groups of landowners in their view of self as steward, and have made note of implications of these differences.

I will provide a background of the concepts of stewardship and the land ethic in both an historical and contemporary context. I will discuss the findings of my Central Texas landowner study, emphasizing the idea that with a clear understanding of landowners, their motivations, and value systems, agency personnel will better equip the managers of conservation programs to effectively reach landowners. I will outline 3 dominant groups of landowners that have distinct feelings and ideas (or lack thereof) regarding land stewardship, and the cultural values that have worked within these groups to develop their respective stewardship ethics. I also propose the idea that it is through time and cultural maturity that landowners acquire and develop a land ethic or sense of stewardship. With the recognition of such, there may be effective ways agency personnel can act to foster and expedite this maturity in some landowners. Finally, I will

discuss specific policy initiation and implementation adjustments that these findings suggest.

Stewardship and The Land Ethic

An ethic is “a body of moral principles or values governing an individual or a group” (Stein 1988). This definition helps us understand that an ethic, by its inherent nature is held differently by each individual.

The concept of stewardship, while somewhat ambiguously used, is defined as, “the responsible use (including conservation) of natural resources in a way that takes full and balanced account of the interests of society, future generations, and other species, as well as of private needs, and accepts significant answerability to society” (Worrell and Appelby 2000). They go on to say that those applying a religious interpretation would add the phrase, “and ultimately to God” at the end of the definition. Wunderlich (2004) adds that “the term steward encompasses a rather broad range of responsibilities for the things of a designated other, including God”. It is imperative to note, again, that when dealing with the view private landowners have of themselves; this definition is going to vary widely by individual. Therefore, the previously quoted definition must remain flexible and open to interpretation by the individual.

Finally, the definition of a land ethic: when Leopold first mentioned it in 1949, he stated that “a land ethic changes the role of *Homo sapiens* from conqueror of the land-community to plain member and citizen of it.” Therefore, a land ethic represents a fundamental mindset that humans are a member of the ecosystem, not an authoritative

figure outside of nature. In this context, a land ethic as the set of self-imposed controls that result in land stewardship.

The concepts of stewardship and land ethics, in normal usage, imply positive actions toward nature and the human place in nature. However, it is imperative to note that neither term, when applied at the landowner level, equates “good” or “wise” management (Worrell and Appelby 2000). A landowner may have what seems to be a strong land ethic, or view of self as steward, but without proper experience, knowledge, and/or training, his actions may not produce sound management of his property. Valenčius (1969) stated that “ what people say isn’t always what they do, and isn’t the whole of what they think or feel, but the net of language offers us a tool with which to scoop up at least for a time, the swiftly wriggling vitality of a larger identity of self and land”. With these concepts in mind, the following dialog from landowners is offered in order to illuminate the values and motivations of landowners and serve as a guide for future private lands natural resource policy decisions.

Frontier Heroes: An Historical Stereotype of Landowners

America’s frontier was settled by unique individuals, coming from various places, but each with a strong vision that they were to conquer wilderness (Peterson 1990). As America’s producers, pioneer farmers felt called to conquer and inhabit the wilderness, and to feed and clothe society that followed. This was considered a noble calling – and for many, so it was. Theirs was a tradition rooted in a spiritual call to subdue the land, and their foundation was built upon the values of hard work, independence, family and spirituality (Valenčius 1969).

As the tradition of American agriculture evolved from an era of pioneers into the 1930's dust bowl era and beyond, farmers, in their haste to produce short-term economic gains, were many times unaware of the long-term impacts such aggressive and continual farming practices were having on the soil and land in their care (Peterson 1986). In many ways, even as the conservation movement developed, this disregard for long-term impacts was intensified through government conservation agency rhetoric during the dust bowl of the 1930s, that advanced the notion that climate was solely to blame for damages suffered (Peterson 1986, 1991). As would logically follow, farmers and the agencies that provided farm programs were released from any sense of responsibility for damage to the land and would often adopt conservation measures only as long as their short-term goals were met. Practices were then many times abandoned when short-term economic results were no longer evident (Peterson 1991).

According to written accounts, there seems to be no prominent theme of stewardship in early American agriculture (Wunderlich 2004). Not until the mid 1940s, do we find mention of stewardship within the agricultural way of life. The American Country Life Association (ACLA), formed under the Roosevelt administration, was largely responsible for the promotion of the idea of stewardship to rural America with their 1946 "Statement of Principles" (Wunderlich 2004). Their statement said the following: "Ownership of land does not give an absolute right to use or abuse, nor is it devoid of social responsibilities. It is in fact a stewardship...". Stewardship, as an agricultural concept began to evolve from this point forward. Rural Protestant churches, who had historically spoken of stewardship in terms of one's body and monetary

possessions, began to expand the ideal to include all of nature and God's creation (Peterson 1991, Wunderlich 2004).

Developing a New View of Landowners

Many changes have undoubtedly taken place in the ideals and motivations of landowners since the time of the dust bowl. Regrettably, though, there is little, if any, documentation dealing specifically with contemporary landowner perceptions of self from the colonial period until the early 1990s. Consequently, landowners are many times stereotypically classified as being focused primarily on short-term economic profitability, and having little or no concern for ecological sustainability. Failure of policy-makers to understand the ideals and motivations of landowners and the implications of such on their actions have undoubtedly hampered the formation of many potential wildlife and range conservation partnerships between state or federal government entities and private landowners. In order for agriculture policy to be truly effective, it is imperative that decision-makers understand the motivations and values of landowners (Peterson 1991).

The recent studies that have been conducted, have described landowners as being driven by common sense, independence, a unique human-land connection, and having much respect for generational and experiential knowledge (Peterson 1990; Peterson and Horton 1995). Williams (2000) cited similar motivations, and added that ranchers in Calhoun County, Texas, expressed a distinct agricultural land ethic when they described ranching as a lifestyle formed by "making a living, being on the land, and taking care of the land". Many of the landowners in the Calhoun county study also emphasized their

long-term goals for their property and the pride they felt in their ability to one day pass their land along to future generations. Contemporary landowners have also been cited as having disdain for the image of the frontier hero (Peterson and Horton 1995). They equate the frontiersman image to one of poor management practices and exploitation of natural resources.

Additionally, Pope and Goodwin (1984) report the occurrence of a decreasing number of landowners that list economics as their primary motivation for land ownership and management, and an increasing number that are more focused on aesthetics and quality of life aspects of owning land.

The question arises, then: If we know that landowners put less and less of their ownership emphasis on economic factors, and that many of them have a strong sense of stewardship, how does natural resource policy need to adapt to reflect these values.

METHODS

Study Area and Objectives

My landowner attitude and motivations study took place in the Central Texas counties of Bell, Coryell, Hamilton and Comanche (Figure 1.1). The objective was to sample both traditional and newer landowners, therefore I chose 4 counties that represented a continuum of urban to rural character; hypothesizing that those more urban counties would be home to a larger number of absentee and recreational landowners, and that the more rural counties would be comprised primarily of more traditional, agricultural landowners.

My study focused on obtaining a deeper understanding of the attitudes and motivations of landowners, specifically regarding range and wildlife management, and participation in government assistance and incentive programs for natural resources. Many areas of Texas are slowly becoming home to more absentee and recreational landowners and fewer traditional, agricultural landowners. New landowners bring in new ideas, backgrounds, goals, levels of income, education, experience, and perspectives. Presumably, the influx of these “non-traditional” landowners could have significant implications on the acceptance of private lands conservation programs promoted by state and federal agencies.

With the advent of such dramatic land use and ownership changes taking place throughout the state of Texas in recent years, and projected future changes (Wilkins et al. 2003), I was especially interested in determining the differences between the new generation of landowners and those who would be characterized as more traditional, agricultural landowners. I hoped to provide agency personnel and policy-makers with information that would allow them to profile certain groups of landowners relative to their likelihood of participation in various types of programs based on easily recognizable ownership and property characteristics.

Bell County is the most urban of the 4 counties surveyed. It is home to the metropolitan areas of Temple (population: 50,714), Killeen (population: 81,405) and Belton (population: 14, 664) (U.S. Bureau of the Census, 1999). The Leon River, with its watershed covering the northern half of the county, drains into Lake Belton at its northwestern edge. The county also encompasses the southeastern portion of Fort Hood.

In the rural parts of the county, the average size of farms and ranches is 88ha, with an average tenure of 17.6 years (2002 USDA Census of Agriculture). The average age of operators in Bell County is 56.1 years and of the 2,080 operators in the county, 49% have their primary occupation off the farm. Only 23% of Bell County's operators do not reside on their farm.

The next county along the urban to rural gradient is Coryell County, which contains the cities of Gatesville (population: 13,010) and Copperas Cove (population: 31,039) (U.S. Bureau of the Census, 1999). The Leon River flows through the center of the county, and the river's watershed covers the majority of the county. Fort Hood, a 101,174ha military installation, covers over 1/3 of the area of the county. The remaining private land in Coryell County has an average farm and ranch size of 163ha, with an average tenure of 17.5 years (2002 USDA Census of Agriculture). The average age of operators in Coryell County is 56.4 years. Of the 1,221 operators in the county, 50% have occupations in addition to farming, and make the majority of their income from these off-farm occupations. Only 25% of Coryell County's operators live off their farm.

The third county in my 4-county urban to rural continuum is Hamilton County. The 2 largest cities are Hamilton (population: 2,910) and Hico (population: 1,284) (U.S. Bureau of the Census, 1999). The Leon River bisects the county in its northwestern third, and its watershed covers most of the county. Average farm and ranch size in Hamilton County is 183ha, with an average tenure of 18.7 years (2002 USDA Census of Agriculture). The average operator age in Hamilton County is 59.6 years and of the 996 operators in the county, 44% make the majority of their income from off-farm

occupations. Only 33% of Hamilton County's operators do not reside on their farm (2002 USDA Census of Agriculture).

The most rural of the 4 counties surveyed is Comanche County. The largest city in the county is that of Comanche (population: 4,155) (U.S. Bureau of the Census, 1999). The Leon River also bisects this county in its northeastern third, flowing through Lake Proctor in the west-central part of the county. Average farm and ranch size in Comanche County is 163ha, with an average tenure of 19.4 years (2002 USDA Census of Agriculture). The average operator in Comanche County is 58.1 years of age and of the 1,352 operators in the county, 68% make the majority of their income from occupations other than farming or ranching. Thirty-one percent of Comanche County's landowners reside somewhere other than their property (2002 USDA Census of Agriculture).

Landowner Interviews

I utilized informant-directed interviews of 60 landowners in my study area. I arbitrarily selected properties in three size categories in each of the 4 counties using aerial photographs and parcel information obtained from county tax appraisal districts. In my selection process, I focused on properties that would likely be able to feasibly support wildlife populations, and would subsequently likely be eligible for range and wildlife conservation programs. I used size categories (41-202 ha, 202-809 ha, and ≥ 809 ha) to stratify my sample. Five landowners were randomly selected from the tax appraisal roles of each county, for a total sample size of 60 respondents. If a property was determined from aerial photos to be largely native rangeland, it was retained in the sample. Otherwise it was discarded and another property was selected.

Following approval to conduct research on human subjects by the Internal Review Board at Texas A&M University (Appendix A), I contacted landowners by phone and scheduled interviews to be performed in person at a later date. The interviews consisted of the administration of a quantitative questionnaire followed by the informant directed interview. All interviews were recorded and transcribed in their entirety. The questionnaire was administered first and was the vehicle for determining landowner and land ownership characteristics that could later be correlated with responses to the qualitative interview.

I asked landowners a variety of questions in order to assess their participation in, knowledge of, and ideals regarding government incentive programs for natural resources. I additionally used floating prompts to facilitate conversation regarding landowner values that contributed to their decision-making processes for natural resources.

My interview protocol was an adaptation of the *Active Interview* process (Holstein and Gubrium 1995). I used general, open-ended questions with the goal of facilitating active conversation with the informant, allowing the informant to orchestrate the direction of the conversation. This process attempts to eliminate bias potentially introduced through questions that may inadvertently lead informants to answer in a particular way. The goal of this portion of the interview was to obtain a solid understanding of landowner value systems and how those value systems worked to guide their decisions about range and wildlife management and their motivations for owning land.

Analysis

Analysis of my data was initially performed as the data was being collected, using the concept of grounded theory development (Strauss and Corbin 1998). Using this method, I constantly revisited my data as the interviews took place, and used subsequent interviews to validate preliminary theories that were developed. Following the completion of all interviews, I adapted a process used extensively by Tarla Rai Peterson (Peterson et al. 1994; Waitzkin 1993) for analysis of landowner discourse to identify themes in my interview transcripts that could lead us to a deeper understanding of the landowner's thought processes and value systems. I systematically examined each transcript for distinct *thematic content* (Peterson et al. 1994). Essentially, I sought out and documented phrases used routinely by landowners in an attempt to understand the values which guide their decisions for land management, and what types of incentives would motivate their land management actions. As cross-cutting themes began to emerge, transcripts were divided into groups, and re-analyzed, developing the themes as the analysis took place.

During the analysis phase of my initial study, I began to notice that many of the landowners with whom I talked had a very strong sense of stewardship, and their land ethic guided many of the every-day decisions made about their land. On the surface, it seemed that the different profile groups had similarities among their respective group members regarding their land ethic. Thus, I began a new analysis process with the goal of obtaining a deeper understanding of this expressed sense of stewardship and land ethic.

I was interested in obtaining an in-depth understanding of the contemporary landowner's view of self-as-steward and determining what kind of implications such an understanding could have on their attitudes and motivations regarding participation in range and wildlife conservation programs. Additionally, if the landowners in my central Texas study exhibited the same stewardship ethic as that which seemed to be present in those cited by Peterson and Horton (1995) and Williams (2000), I was interested in trying to discover the basis for the apparent change in values from those of the frontier hero.

This analysis took place using the same methods as those cited in the original study. Additionally, as I discovered words or phrases used routinely by a particular group, I utilized electronic searches of the interview transcripts to document actual number of utterances of the word or phrase.

Some specific questions I sought to answer were as follows:

1. Do all contemporary landowners view themselves as stewards of their land?
2. If all landowners do not exhibit a sense of stewardship or a land ethic regarding the land in their care, are there certain characteristics that identify those who do?
3. What has caused the shift in values from those of the frontier hero ("conqueror of the land") to those seen today ("plain member and citizen of it") in some landowners?
4. What kind of influence does a landowner's sense of stewardship or the presence of a land ethic have on their ownership and management decisions and participation in government conservation programs?

RESULTS

I obtained a 74.7% response rate, and 84.2% of non-respondents were due to scheduling conflicts. Therefore, I considered non-response bias to be minimal.

I identified 3 broad categories of landowners present in my project area. These categories represented groups of landowners with similar ideas and values regarding land management and government involvement in natural resources. I will refer to these groups or profiles using names that I have assigned to them that I feel embody the values each group represents; 1) “Born to the Land”, 2) “Ag. Business”, and 3) “Re-born to the Land”.

Landowner Profiles

Born to the Land.-- The Born to the Land group owned the largest portion of the land (61%) in my survey, and represented 47% of the landowners surveyed. This group of landowners, typically recognized as traditional, agricultural landowners, have the longest tenure on their land, and usually own relatively large properties. Livestock is either the primary or a significant source of these individual’s livelihood, and they are the least likely of the three groups to be capitalizing from wildlife enterprises. These landowners generally have a strong view that government should not be involved in their land management activities, however most have participated in some form of government assistance. They exhibit reluctance to participate in long-term or complex government programs.

The landowners in this group talked routinely of “the land” and “creation” as something much larger than their particular property. Many of the landowners in this

category seemed to have a strong emotional connection to the land. They talked about their love for “the place” and how they desired to eventually pass their land on to their children or grandchildren. They also consistently spoke of “leaving their land better than they found it”, and hoping their heirs will do the same, as the following man put it: “I’m not going to be here forever. Somebody’s got to take care of the land. I...hope to leave it better than I found it. It’s mine as long as I live. When I’m dead, somebody else will take over. I hope they do what I did.”

Born to the Land owners talked about the pride they possess and, many times the spiritual responsibility they feel as stewards of the land in their care. One man said, “And the good Lord, if you’re a steward of the land then I believe you a have a responsibility to do, to do that, and if you don’t, I think at Judgment Day you’ll be held accountable for it.” While they did not always articulate the word “steward”, almost all of them spoke of the feelings they have of being responsible for how the land is treated. They also talked about how they have a “natural incentive” to take care of their land, meaning that they understand the long-term impacts of their actions. By taking care of the land to the best of their ability, not only are they promoting sustainability of the plant and animal communities on their land, but also that of their livelihood.

These landowners many times spoke of the way their fathers and grandfathers did things, or what they learned from previous generations or mentors regarding care and management of land and livestock, as this Coryell County man stated, “I had a grandpa that, uh, respected the land, and I guess I walked across the plains to a country school, and um, it kinda set me into loving land.”... “Like I said a while ago, this land’s only

ours for a small period of time.” This value for generational and experiential knowledge many times translates into a landowner’s view of agency personnel as well. Landowners in this group often expressed their level of respect for various agency field personnel in terms of whether or not they “came from a ranching family” or “grew up around these parts”.

The dialog involving incentive programs also had some implications for the role of a landowner’s stewardship ethic in their participation in government programs. As mentioned earlier, this group generally communicated strong feelings against government involvement in natural resources and agriculture. One man said, “I just don’t think the government should be paying me to do something I ought to do anyway”. Born to the Land owners often seem to feel that the existence of government programs for landowners implies that landowners cannot be competent stewards of their land without government assistance. Simultaneously, however, some respondents in this group seem to have come to the realization that without extra cash flow generated by participation in government programs, their revenue is not great enough to be the kind of stewards they want to be on their land. One gentleman said, “Money makes it pretty difficult sometimes. Especially if you don’t have the resources to... be the kind of steward that you want to be on your land.”

When the issue of endangered species was brought up, nearly all individuals classified as Born to the Land had an initial response implying that the government has no right to tell them what to do on their property, and that “no bird or rat is more important than I am”, or something to that effect. At some point in the conversation,

however, almost all of these respondents reiterated their sense of responsibility for all of the animals on their land, and that they wouldn't want any of them to become extinct. They usually emphasized that they don't want to be told what to do by an "outsider", usually referring to agency personnel whom they perceive as lacking discernment to make decisions about an individual's private property.

In this portion of my analysis, I found that each of my 3 landowner groups seemed to have a different production focus. The "thing" being produced varied between groups. I found that while Born to the Land owners would either identify their property as a "livestock operation" or a "livestock and wildlife operation", in reality, the thing they are focused on producing is a "lifestyle". One Comanche County man articulated this point well when asked why he owns and manages land. He said, "It's not a good way to make a living...it's a way of life."

Additionally, many of the respondents in this group talked about how they worried about the influx of new landowners. They expressed concern that new landowners lack the connection to the land that Born to the Land owners possess. One man expressed the view that new landowners simply didn't have the emotional connection to the land needed to really take care of it when he said, "But they can't have it... they can never know the feeling." Many of them also emphasized the fact that they felt that it was irresponsible for someone to own land and not live on it.

Ag. Business.-- My second profile group, the Ag. Business group, characteristically has relatively large land holdings, and have owned their land between 3 and 25 years. Ag. Business landowners were the smallest of the 3 groups, only

representing 19% of my respondents; however, they owned 29% of the total land area sampled. Most of these landowners are retirees, or part-time ranchers that have been successful in some other profession and are now focused on being successful ranchers. The maximum profit orientation of this group often takes precedence over ecological health and sustainability of their land. Of the 3 profile groups, this group tends to be the most independent of government assistance and the least likely to seek information or participate in programs.

In contrast to the Born to the Land group, Ag. Business landowners often spoke of their “operation”, and much less commonly mentioned “the land”. One Ag. Business Landowner said, “... we’re a combination wildlife operation: dove, exotics, trophy deer, and a bow operation. Guys from all the states come in here”... “We have a cook – it’s a full-blown operation!”

As mentioned earlier, this group is focused on creating a profitable business on their property, and thus it seems that they are much less focused on the emotional or sentimental aspects of maintaining a way of life. Additionally, these respondents seem to be enamored with their identification as a “rancher” and it seems that ownership of land serves as a validation of that identity. They seem to be living out a glamorous lifestyle that emulates that of the frontier hero, minus a struggle for survival. Only one Ag. Business man mentioned stewardship.

When asked why they own and manage land, these landowners said that they enjoy ranching and they enjoy “improving” their properties. One gentleman said, “I Love it. It makes you feel good. It gives you something to get up every morning and

do...it gives you satisfaction.” Personal satisfaction is also something mentioned frequently. Another man said, “It’s a challenge to try to make a profit on it.”

Ranching to this group is a challenge and something to accomplish, they articulate little connection to the land and actually seem to exhibit the attitude of the frontier hero to a certain degree. This attitude of conquering and improving the land is identifiable in this statement from a Comanche County man: “When I get rid of the brush, every time I push it, I put in improved grass... I own 2 bulldozers, too. So... as we go in, I’m actually reclaiming the land.” This attitude seems to suggest that the land only achieves its full potential with the presence of extensive human manipulation.

Landowners in the Ag. Business group were the most likely to mention their property’s investment potential and the possibility of someday selling their property. This group rarely mentioned passing their land on to future generations. One man said the reason he owned the place was for “...investment purposes. [And I] hope to get some use out of it too”.

Re-Born to the Land.-- Re-Born to the Land owners represented a large number of my respondents (33%), but only 10% of the land area sampled. This group is characterized by relatively short tenure on small properties. Over half of the respondents in this group had a tenure of 10 years or less, and owned properties less than 202 ha. They generally are most focused on the aesthetic and recreational aspects of their properties and are interested in “taking care” of their land. Re-Born owners commonly speak of their limited knowledge on the subjects of land, wildlife and/or livestock management, and their desire to learn more. This group is therefore strongly receptive to

landowner education programs and to technical assistance provided by government agencies or other groups.

Re-Born owners tended to emphasize a unique appreciation for variety in nature, natural systems, and native plants and animals. One Re-Born owner said, “I think if you let nature control it, nature will do the best job. And I think you have an obligation to look at it as you’re only a steward, really.” They did not articulate the words “steward” or “stewardship” as often as did the Born to the Land owners, but they consistently exhibited a much stronger connection to the land than expressed by those in the Ag. Business category.

While Born to the Land owners often fear extinction of their way of life, Re-Born owners take pride in the role they play in preserving the ranching lifestyle. Several Re-Born informants spoke of passed relatives that had made their living on the land. They spoke of them reverently, and as though they were carrying on their ancestor’s legacy. One man spoke of working on his grandfather’s ranch during summers as a boy, and how he had always dreamed of owning his own place. He took his father’s advice, however, and went out and made his living in the business world. Now that he’s retired, he’s living out his dream and his grandfather’s legacy, which makes him extremely proud.

Within the Re-Born to the Land group there seems to be 3 dominant reasons for ownership and continued ownership of land in which distinct levels of maturity in their land ethic are apparent.

First, I found a recreational emphasis. This subgroup included the weekenders that focus primarily on the recreational value of their land. They tend to express the least

“maturity”, if you will, in their land ethic. Respondents in this group typically have owned their land for a relatively short period of time, and theoretically, have not had time to develop a strong land ethic. These are absentee landowners.

Secondly are those landowners who seem to keep their land because of the presence of a sentimental attachment or emotional sense of responsibility to maintain family land. This group visits their land the least frequently and has the least personal contact with management. These properties are commonly leased out for grazing and/or hunting. They do, however express a strong sentimental connection to the land, and therefore are unlikely to sell it. They speak of how they want to keep the land to honor their ancestors and they desire to take care of the land while they have it. These are also absentee landowners. The following quotes from landowners in this subgroup explain this subgroup their motivations well: “It’s an emotional thing... it’s been in the family forever and it’s just [my sisters] love the land”... “we like the environment.”; “It just breaks me up that so much property is being broken up and made into these ranchettes... and we don’t intend to sell”.; “[We own it] well, because we inherited it. We’re not turning loose of it. And you know, it’s important because it’s family land... sort of like a conservatorship for the family.”

The third subgroup within the Reborn to the Land category was represented by landowners who seemed to own and operate land as part of their lifestyle and for the enjoyment it provides them. This group tended to articulate the strongest attachment to their land and therefore the strongest land ethic within the Re-Born group. This is also the largest subgroup. They emphasize the lifestyle, often that which was lived by their

fathers and grandfathers, that they are trying to emulate by living on their land. They also tended to emphasize the responsibility they have to “take care of” the property and imitate natural systems through their management. Most of the landowners in this group live on their land, although there are a few that are absentee, but visit the property very frequently.

The following quotes from respondents in this subgroup explain why they own and manage land: “Well, I inherited it, and I just enjoy it.”... “Sometimes I just go down there and just sit in my old pickup and watch the deer...I just enjoy it.”; “I think having grown up on a small farm, it’s just always nice to have that capacity to go back. I just enjoy going out there now and just sitting on the front porch in the rocking chair and just being out there.”; “I guess it’s just roots...I wanted a place”... “it was a lifelong dream to me to own my land”; “it’s a very rewarding experience...it’s just the whole experience...a great lifestyle to pass on to the kids.”; “I always wanted to do farm work...I just couldn’t afford it.”; “I don’t know why...(laugh)...it’s part of our heritage...part of it’s emotional for us – it can’t be economics! [we like] working outside...enjoyment.”; “I want to have a place for them [my livestock], and you know, hunting and recreation and seclusion as far as our home environment. We enjoy being out in the country.”; “I think, to take care of the land... it’s like any other, you have to love the land...you’ve got to be kind of a different kind of person, I guess.”

Ethical Relationships to the Land

Frontier Heroes, Land Stewards, and Romantics.-- Not all landowners demonstrated a recognizable land ethic; but members of each group did articulate a

distinct production emphasis or “production ethic”. This suggests that their ethical contract depended upon what they were producing. Born to the Land individuals produce a lifestyle, or a livelihood within the context of a lifestyle, so their ethical contract results in stewardship of the components of land that serve as the source of that livelihood. Ag. Business landowners are more focused on producing salable commodities; therefore their contract motivates them to view the land as a tool for meeting maximum production of that particular commodity. Similarly, Re-Born owners produce an experience or recreation, and their ethical contract results in a romantic relationship with their land and glamorizing that experience they are producing. It could also be said that each of the 3 groups views themselves as stewards, dependant upon what they are producing – i.e, they are stewarding different resources. Born to the Land steward the land and their lifestyle; Ag. Business steward their enterprises (at times on different properties); and Re-Born landowners steward a lifestyle that simulates ranching.

Consequently, I divided my landowners into 3 new groups, ambiguous of my profile groups, based on this production emphasis model. Landowners were grouped based on their ethical attitude, which seemed to be born of their production emphasis. The 3 groups are as follows: Frontier Heroes, Stewards, or Romantics.

Demographic Indicators.--When I compare these ethical attitudes with the original profile groups I created, I find that all but one of my respondents classified as Frontier Heroes fall within the Ag. Business group, 21 out of 27 Stewards are Born to the Land, and 17 out of 19 Romantics can also be classified within the Re-born to the Land

group (Table 3.1). Of additional importance is the fact that both Romantics and Stewards are almost nonexistent in the Ag. Business profile.

Table 3.1. Number of landowners classified within ethical attitude distinctions that fall within original profile categories.

Ethical Attitude	Profile Group		
	Ag. Business	Born to the Land	Re-Born to the Land
Frontier Hero	10	1	1
Romantic	1	5	17
Steward	0	21	1

I found, using Tukey's HSD, that Ethical Attitude has a significant influence on size of property as well as ranching experience, however neither age, nor income demonstrated significant relationships at the $\alpha = 0.05$ level (Table 3.2). The mean size of Romantic's properties were significantly smaller than those of Frontier Heroes ($p = 0.022$). Differences between Steward's property sizes and Frontier Hero's property sizes were not significant at the $\alpha = 0.05$ level.

Ranching experience was impacted significantly by Ethical Attitude, with Stewards having consistently more ranching experience than both Frontier Heroes ($p = 0.032$) and Romantics ($p = 0.000$). The difference between the reported years of

ranching experience between Romantics and Frontier Heroes was not found to be significant at the $\alpha = 0.05$ level, however the significance level ($p = 0.066$) does lead to speculation as to whether or not a larger sample size would have resulted in a significant relationship.

Table 3.2. Relevant demographic characteristics of ethical attitude group.

	<i>N</i>	Area Managed (ha)		Age (yrs)		Ranching Experience (yrs)		% Income from Ranching	
		X	SE	X	SE	X	SE	X	SE
Ethical Attitude									
Frontier Hero	12	1094.6	347.2	53.7	3.6	25.0	3.3	30.7	11.5
Romantic	23	307.7	250.8	55.9	2.9	12.7	2.9	12.2	4.5
Steward	22	1295.0	256.4	59.8	3.0	39.0	3.8	31.1	6.1

Tenure exhibited distinct patterns when compared with my respondents' Ethical Attitudes (Table 3.3). Frontier Heroes are characterized by mid-range tenure, with 55% percent of them having owned their land between 11 and 25 years. Romantics typically have short tenure on their land (57% of the Romantics in my sample have owned their

land less than 25 years). And, finally, Stewards are characterized by multi-generational ownerships, with 71% of Stewards having owned their land greater than 25 years.

Table 3.3. Number of landowners by ethical attitude group and tenure.

Ethical Attitude	Tenure				
	<3 Years	3-10 Years	11-25 Years	>25 Years	>1 Generation
Frontier Hero	1	4	2	4	0
Romantic	2	8	3	4	6
Steward	1	1	4	6	9

Frontier Heroes were the most likely group in my sample to speak of someday selling their property (Table 3.4). Only 64% of the Frontier Hero group said they planned to keep their land indefinitely, while 91% and 95% of the Romantics and Stewards, respectively, said they did not plan on selling their property.

Based on my original size categories, I found that Frontier Heroes and Stewards were most likely to be found to own properties in the medium and large categories, while Romantics were more likely to own land in the medium and small categories (Table 3.5).

Lastly, I found that Frontier Heroes were the most likely of the 3 Ethical Attitude groups to be found to consistently live on their land, rather than be absentee landowners (Table 3.6). Romantics and Stewards were less distinguishable based on residency

status, although Romantics were slightly more likely to be absentee than to live on their land, and Stewards were slightly more likely to live on their land than to live elsewhere.

Table 3.4. Number of landowners by ethical attitude group and years intend to own.

Ethical Attitude	Years Intend to Own		
	1-3 Years	3-10 Years	Indefinitely
Frontier Hero	2	2	7
Romantic	1	1	21
Steward	0	1	19

Table 3.5. Number of landowners by ethical attitude group and size category.

Ethical Attitude	Size Category		
	Small	Medium	Large
Frontier Hero	2	3	7
Romantic	12	9	2
Steward	4	9	9

Table 3.6. Number of landowners by ethical attitude group and residency status.

Ethical Attitude	Residency Status	
	Resident	Absentee
Frontier Hero	75%	25%
Romantic	39%	61%
Steward	68%	32%

DISCUSSION

My stewardship analysis was initiated with the goal of answering 4 broad questions. I will revisit those questions now. First, I found that not all landowners express a land ethic. Those landowners who have been categorized into the Ag. Business group do not generally express an identifiable land ethic. Nevertheless, it is important to remember that this finding does not imply that Ag. Business landowners are poor managers, or that landowners that express a strong land ethic are good managers. For example, it was apparent on some properties owned by Ag. Business owners that wise land management decisions had resulted in healthy rangelands. Alternately, some properties owned by Born to the Land and Re-Born to the Land individuals, showed signs that overgrazing or otherwise negative practices had resulted in poor management. The presence or absence of a distinguishable land ethic simply represents a piece of the

motivational framework different landowners rely upon to make decisions about their land.

Secondly, I was interested in discovering if those landowners that did not express a transparent stewardship ethic could be easily identified. In my Central Texas landowner study, I found several characteristics that the majority of Ag. Business landowners exhibit (Sanders et al. In Press). Short tenure, large properties, high income, and a previous successful career were among the indicators of the Ag. Business profile group, and thus indicators of landowners that do not express a strong, developed land ethic.

My third question dealt with the apparent shift in values from those of the frontier hero to values that reflect an increased and matured stewardship ethic seen in many landowners of today. While I cannot conclusively declare what caused the shift in many landowners' ideals regarding their role as stewards of land, it is obvious that those landowners who express a clear desire to promote long-term sustainability in ecological, lifestyle, profit, and production areas, have the strongest land ethic. This could be the result of "ethical nurturing", by ancestors or other mentors that had begun to understand the intrinsic value and vulnerability of land to human impacts (Leopold 2004). Carl Leopold further suggests that a land ethic can be fostered through participation in land or ecological restoration. Can we logically, then, assume that general land management can facilitate the same? Those that would choose to accept this theory could sensibly deduce that many multi-generational landowners would possess a strong, developed land ethic, learned in large part from their forefathers. Similarly, this theory could explain the Ag.

Business landowner's lack of stewardship, in that he simply has not received, or has chosen not to accept any kind of "ethical nurturing" in this area.

Finally, I was interested in discovering what impact the presence of a landowner's sense of stewardship has upon their land ownership and management decisions. Land ownership is undoubtedly affected by a landowner's sense of stewardship. I found that a landowner's desire to hold on to their land was positively related to their expressed level of stewardship. Those landowners with the strongest expression of a land ethic or connection to the land were the most dedicated to maintaining ownership of the particular piece of geography that they currently owned. Alternately, those landowners who failed to express an obviously strong stewardship or land ethic, were much more likely to be willing to someday sell their property. These landowners additionally seemed to have few feelings against subdivision of parcels.

Management decisions seemed to be heavily dependent upon the level of stewardship a particular landowner expressed. Those landowners who expressed a strong land ethic were much more likely to respond positively to practices they felt would provide long-term sustainability of their livelihood and land. And landowners lacking an obvious land ethic were more likely to be motivated by the short-term economic potential of a practice.

Peterson and Horton (1995) assert that the formation of myths within a culture or group of people is often necessitated by a fear of extinction within that culture. Myths are any common mindset adopted by a group. Many landowners in the Born to the Land group spoke of their fear of losing their way of life. They didn't fear losing their

property, but they have observed economic trends, social trends, land use and buying trends, that led them to believe that in not so many generations, the ways of the farmer and rancher will merely be stories passed down about past ancestors. Alternately, Re-Born owners seem to see themselves as reviving the rural, ranching lifestyle once lived by many of their ancestors.

I have identified 3 interesting aspects of this notion that while Born to the Land owners fear the death of a lifestyle, Re-Born owners have taken it upon themselves to revive and sustain it. First, while the tradition of ranching may be drifting from what the “old-timers” identify with, there are individuals interested in preserving the legacy. Secondly, those that are interested in carrying on the legacy, not only have the desire to “take care” of the land, but most of them have the capital to fuel that desire. And finally, many of these Re-born landowners know and admit that they are not ‘ranchers’. They are not capable of doing, nor do they have the desire to do all of what their daddies and granddaddies did. They know that they are just replicating the appealing parts of the lifestyle.

While no one desires the extinction of the ranching lifestyle, and agencies should continue to prevent it from occurring in every way possible, this understanding could represent a unique opportunity for agencies to tap into the motivations of Re-Born landowners and use this knowledge to assist them in becoming fully equipped with the knowledge and skills to realize their self-identified calling. Additionally, this information may serve as a selling point for both Born and Re-Born landowners to facilitate partnerships with one another, teaming up to form wildlife management

cooperatives, etc. If agencies can persuade Born to the Land owners that they share many common goals with Re-Born owners, the two groups may begin to form a much stronger bond, which could greatly enhance the effectiveness of many regional conservation programs.

CONCLUSION - NATURAL RESOURCE POLICY IMPLICATIONS

Aldo Leopold (1934) wrote that “conservation will ultimately boil down to rewarding the private landowner who conserves the public interest”. Agencies must understand that all landowners are not the same, and most importantly, most landowners are not frontier heroes. It has been said that as people begin to understand their responsibility as stewards of public goods, there will be a decreased need for compulsion and coercion (Worrell and Appelby 2000). With this theory, coupled with the understanding of contemporary landowners’ view of themselves as stewards of natural resources, the role of the carrot and stick in natural resource conservation may need strong reevaluation.

The majority of landowners in this study were not strictly motivated by economic incentives. Natural resource agencies, therefore, will most effectively reach the largest number of landowners and impact the largest area of land with programs packaged with a ‘stewardship’ cloak that mirrors landowners’ view of their calling as stewards. Such strategic packaging could allow agency personnel to effectively promote the same programs to different groups of landowners, simply by speaking about the program in a way that would appeal to that group. Agencies must also realize that they cannot expect

programs that imply that landowners need to adopt the agency's idea of stewardship or the agency's land ethic to gain maximized support from landowners.

In summary, Born to the Land owners will be most effectively reached with programs packaged and promoted as empowering them to be “the stewards they want to be on their land” and those that seek to sustain the agricultural tradition or lifestyle. Re-Born to the Land owners will most often be motivated by programs equipping them with the knowledge, skills, and in some cases – subsidies, to be stewards of their land. And Ag. Business owners will still effectively be reached with programs that tout short-term economic gains and that validate their production focus.

CHAPTER IV

CONCLUSIONS

Landowners come from various backgrounds, have differing levels of income and experience, and have many different goals and reasons for ownership of land.

Consequently, the historically-utilized stereotype of Texas landowners is no longer an effective framework upon which to build natural resource policy. The increasingly complex climate of Texas land ownership necessitates strong reevaluation of programs and services offered to landowners throughout the state and the way those programs and services are marketed and promoted to different groups of landowners.

Born to the Land, Re-Born to the Land, and Ag. Business landowners each have distinct values, goals for their property and ideals that guide their land management decisions. As Raedeke et al. (2001) implied, many times an individual's self-perceived identity as a rancher can be used as an important means of tapping-in to their value systems and thus, their motivations for land management.

Born to the Land owners feel strongly that their identity as a rancher carries with it a responsibility to uphold the traditions and heritage of agriculture, and the rural lifestyle that they cherish. They also possess a strong desire to steward the land in their care to the best of their ability, ensuring its availability for utilization and enjoyment by future generations. Their major objective for their land is to produce and sustain a living through a rural, agricultural lifestyle.

Ag. Business landowners also cherish agriculture, and their identity as a newly-initiated rancher. These landowners feel that their background offers something new to

the agricultural community, and that their business emphasis is what is lacking in many agricultural endeavors. Their major objective is to be identified as a rancher, and to prove that one can make a profit from a progressive entrepreneurial ranching enterprise.

Finally, Re-Born to the Land owners envision themselves as saviors of the rural, ranching lifestyle and stewards of the land in their care. Their major goal is to produce a recreational lifestyle that simulates ranching, and a romantic stewardship experience on their land.

While traditional agricultural, or 'Born to the Land' owners still dominate many rural parts of the state, Re-Born and Ag. Business landowners operate considerable portions of our study area, and probably occupy even larger portions in areas of the state undergoing high rates of land turnover. It is important to mention that my study was performed in a particular part of the state, and does not necessarily represent the exact conditions in the rest of Texas. I do believe that the identified landowner profiles and the characteristics that they originate from will be consistent throughout the state, however the relative abundance of the 3 groups is likely to vary significantly in different regions. For example, in areas experiencing high rates of land turnover, and in those areas where a gap is present between the agricultural and market values for land, it is likely that Re-Born and Ag. Business profile groups represent a much higher percentage of landowners and land area than in the counties in which our study was conducted. Similarly, in areas where most land is still characterized by multi-generational ownership and stable market values, Born to the Land owners are likely to remain dominant. For these reasons, policy-makers and agency field personnel should contemplate the probable

abundance of various groups of landowners in particular areas of interest before jumping to conclusions about how landowners, in general, will likely respond to particular types of programs.

Agencies and organizations with a mission to conserve wildlife and natural resources through private land management will be well-served to take seriously the implications of this study. Born to the Land owners, as a group, are most likely to respond positively to programs that empower and enable them to maintain their lifestyle and stewardship responsibility. Re-Born owners, while they will likely be the most receptive to the widest range of programs, are largely unaware of the programs and services available to them from agencies and organizations. Additionally, due to their admitted naivety regarding agriculture and land management in general, it is of utmost importance that they be reached with sound management principle early in their land management career. Outreach is important with the Re-Born to the Land group. Ag. Business landowners, while largely unwilling to participate in government programs as a whole, will be most likely impacted by short-term programs, personal attention by recognized individuals in a particular field that interests them, and/or private technical service providers.

While not all landowners express an identifiable land ethic, many do, and the strength of it creates a unique opportunity for agencies and organizations to use the knowledge and understanding of landowners' values to 'sell' particular programs through strategic packaging and/or marketing.

It is apparent in our study that it is through time, cultural maturity and “ethical nurturing” (Leopold 2004) that landowners develop a land ethic. Therefore, we must not dismiss those landowners that display a frontier hero attitude, thinking that they will not be interested in conservation programs or wise management strategies. On the contrary, we must understand 2 things: Initially, we must realize that there are other ways of impacting and motivating these landowners. Secondly, according to the implication of this study and the ideals of C. Leopold, we have hope that over time, and hopefully some form of ethical nurturing, Ag. Business landowners will begin to develop in their sense of stewardship through the formation of a land ethic.

It is important that policy decisions not disenfranchise those landowners that seem to be lacking a land ethic, or seem to express a frontier hero attitude. Instead, we must identify ways in which we can act to foster and expedite the development of their land ethic or sense of stewardship. If such does happen, it is likely that their developed land ethic will begin to play an important role in their decision-making processes and therefore lead to wise management decisions.

As referenced before, Worrell and Appelby (2000) wisely suggested that as people begin to understand their responsibility as stewards of public goods, there will be decreased need for compulsion and coercion. It is obvious through this study and others referenced herein, that there is an increasing trend of sophistication of Texas’ landowners. Many of today’s landowners do understand their impact on the land and they take seriously the responsibility they have as stewards of it. For this reason, the role of the carrot and the stick in natural resource conservation may need strong reevaluation.

With the understanding of the presence of these distinct groups of landowners and their varying goals, ambitions, ideals and values, agencies and organizations and their personnel will now be equipped to more effectively reach the greatest number of landowners and subsequently impact the largest land area through strategic packaging and promotion of conservation programs to landowners.

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